

Volume V of V, Appx11371 to Appx13876
No. 23-1922

In the
United States Court of Appeals
for the Federal Circuit

BEARBOX LLC, AUSTIN STORMS,

Plaintiffs-Appellants,

v.

LANCIUM LLC, MICHAEL T. McNAMARA, RAYMOND E. CLINE, JR.,

Defendants-Appellees.

Appeal from the United States District Court
for the District of Delaware, No. 1:21-cv-00534-GBW-CJB
The Honorable Gregory B. Williams

CORRECTED JOINT APPENDIX

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| Lancium Deck - I Squared v5_1IZ8uVYKObIZVDbZltnXEz-MJYT6wmTrr.pptx | 2018-01-31 | TX266 | Appx11601 Appx11606 |
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| Lancium_Investor_Deck_Q118_v1.pptx | 2017-12-27 | TX374 | Appx11768-11796 |
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| Lancium_Sellback_Sensitivity_Analysis.xlsx | 2019-08-06 | TX764 | Appx12475-12478 |

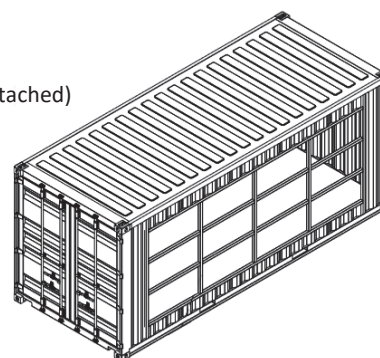
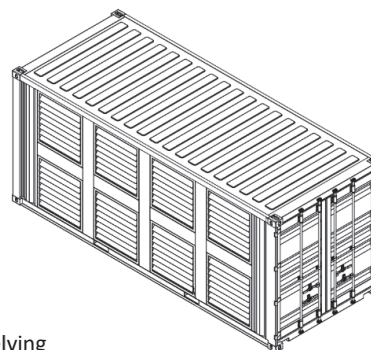
| Document Description | Date | Docket/ Exhibit No. | Appx Pages |
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| Emails between Michael McNamara to Eric Kutscha, Jon Cohen, Raymond Cline attaching BearBox product details summary and specification sheets | 2019-05-09 | TX770 | Appx12946 |
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Product details - BearBox V20S (Bitmain S9j, Dragonmint T1, or similar)

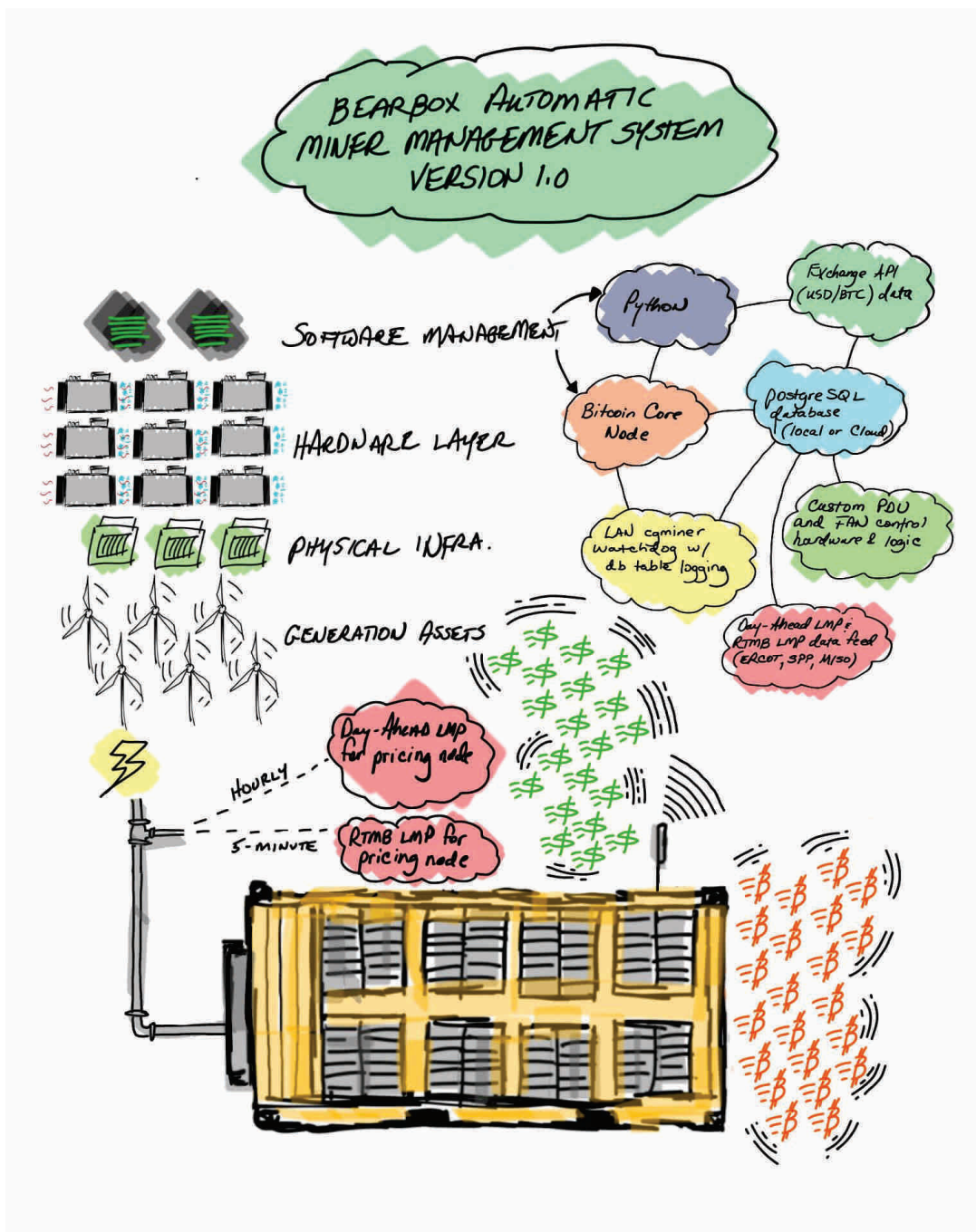
- **Physical Dimensions**
 - Exterior: 20'L x 8' W x 8'6"H
 - Interior: 19'4"L x 7'8"W x 7'9"H
 - Door Opening: 7'8"W x 7'5"H
 - Weight: 4,900 lbs. + installed equipment
- **Electrical System**
 - 3-Phase, 4-Wire 415Y/240v
 - Remote dual-outlet control PDUs (64.8kW total)
 - All network infrastructure on UPS/battery backup
 - ~373kW max load
- **Physical Rack System**
 - Custom laser cut aluminum frame with stainless wire deck shelving
 - Adjustable in 1" increments
- **Cooling System**
 - Convection air cooled
 - (8) 10,100 CFM direct-drive, single-phase exhaust fans (see attached)
 - Temperature controlled/software automation, remote on/off
- **Air Filtration System**
 - Option 1: Permatron Model U2 (see attached)
 - Option 2: Camfil V-Bank Glide/Pack (see attached)
 - Intake-side adjustable pitch weather shield
- **Total Designed Hashrate**
 - 272 miners @ 14.5 TH/s each
 - 3.9 PH/s total
- **Network**
 - Cat5e ethernet
 - 48-port unmanaged switches (CISCO, TP-Link, or other)
 - On-site WAN or satellite (varies by location)
- **Software Management**
 - Local cgminer watchdog
 - PostgreSQL database miner logging
 - PDU/relay mapping (full automation)
 - Optional real-time breakeven monitoring (renewable marketplace data)
 - SMTP email alerts (restart, reboot, and maintenance required)
- **Summary**
 - BearBox V20S (3.9 PH/s @ ~373kW max load)
 - Does **NOT** include miners or exterior electrical infrastructure (transformer)
 - Price - \$86,791.51 (\$94,766.33 after 9.2% sales tax)



Bearbox v Lancium
Trial Exhibit
TX171

**BearBox**

Product details - BearBox V20S (Bitmain S9j, Dragonmint T1, or similar) – cont.





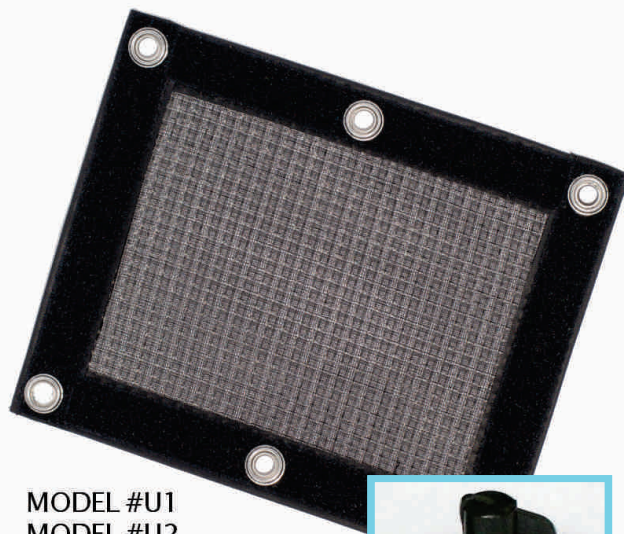
PreVent® Model U/BHA Flexible Frame Air Intake Filter

Acts as a primary pre-filtration defense to help prevent the damage and extensive maintenance that large volumes of dirt and debris can cause. Model U and BHA are custom designed and manufactured to fit any sized air intake.

Model U filter is constructed of washable three-dimensional electrostatic polypropylene media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model U1 contains one layer of media or Model U2 contains two layers of media depending on the application's environmental particle size.

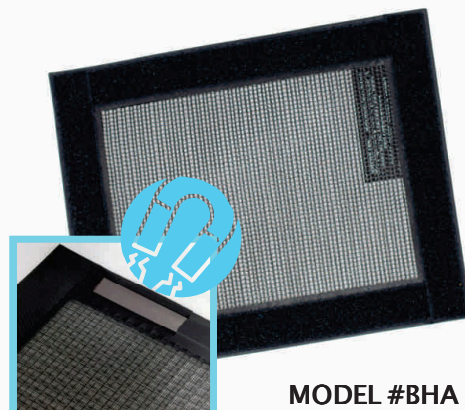
Model BHA filter is constructed of black PVC coated polyester high abrasion media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model BHA contains one layer of media.

- Can be affixed to unit with hook/loop stripping, grommets with mount clips, elastic bungee hooks or magnetic stripping
- Fits any equipment, specify size
- Sewn 2.5" vinyl edge (folded to 1-1/4") is standard for flexible filters 0-2000 square inches
- Sonic welded edges also available as frame option
- UV protected black media
- U/L Classified as to Flammability Only
- 5 Year Warranty



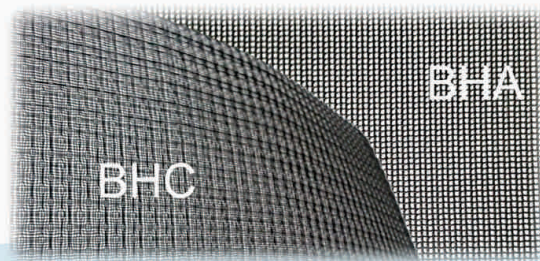
MODEL #U1
MODEL #U2

*Plastic mount
clips available for
easy installation.*



MODEL #BHA

*Magnetic stripping inside vinyl edge
available for easy installation.*



| | U1 | U2 | BHA |
|-----------------------------|------------|------------|------------|
| Avg. Arrestance Efficiency | 42% | 72% | N/A |
| Dust Holding Capacity | 67 gm. | 100 gm | N/A |
| Initial Air Flow Resistance | 0.02" w.g. | 0.05" w.g. | 0.02" w.g. |

www.permatron.com
1-800-882-8012

Bearbox v Lancium
Trial Exhibit
TX172

LIT-PREVENTMODELU/BHA

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LANCIUM00014571

Appx11373

Filter Frames & Housings**Housings (ASHRAE)****V-Bank Glide/Pack®****Advantages**

- **V-bank design reduces filter velocity and filter pressure drop by up to 60%, saving energy**
- **Increases life of filters up to four times**

Typical applications: Single-stage V-bank filter housing for commercial, industrial, manufacturing or medical facilities.

Construction: 16-gauge galvanized steel with pre-drilled standing flanges, dual access doors, UV-resistant door knobs, door and filter sealing gasketing.

Filters: Any 2" deep filter.

Performance: Less than 1/2 of 1% leakage guaranteed. Rated airflow 500 fpm, may be operated to 625 fpm. Standard model operational to ± 6.0 " w.g.

Additional data: Sizes available from 4 filters high to 6 filters wide. Housing is weatherproof for outside installation without modification. Includes pneumatic fitting for static pressure gauge.

See Literature 2421 for more details.

Dimensions and Airflow Capacity (cfm)

| Number of filters wide | Height (inches) | 1/2 Filter wide | 1 Filter wide | 1-1/2 Filters wide | 2 Filters wide | 2-1/2 Filters wide | 3 Filters wide | 3-1/2 Filters wide | 4 Filters wide | 4-1/2 Filters wide | 5 Filters wide | 5-1/2 Filters wide | 6 Filters wide | Housing depth (inches) |
|------------------------|-----------------|-----------------|---------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|------------------------|
| 1/2 | 15.25 | - | 2,000 | - | 4,000 | - | 6,000 | - | 8,000 | - | 10,000 | - | 12,000 | 28.00 |
| 1 | 27.25 | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 | 14,000 | 16,000 | 18,000 | 20,000 | 22,000 | 24,000 | |
| 1-1/2 | 39.50 | - | 6,000 | - | 12,000 | - | 18,000 | - | 24,000 | - | 30,000 | - | 36,000 | |
| 2 | 51.50 | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 28,000 | 32,000 | 36,000 | 40,000 | 44,000 | 48,000 | |
| 2-1/2 | 63.75 | - | 10,000 | - | 20,000 | - | 30,000 | - | 40,000 | - | 50,000 | - | 60,000 | |
| 3 | 75.75 | 6,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 | 42,000 | 48,000 | 54,000 | 60,000 | 66,000 | 72,000 | |
| 3-1/2 | 88.00 | - | 14,000 | - | 28,000 | - | 42,000 | - | 54,000 | - | 70,000 | - | 84,000 | |
| 4 | 100.00 | 8,000 | 16,000 | 24,000 | 32,000 | 40,000 | 48,000 | 56,000 | 60,000 | 72,000 | 80,000 | 88,000 | 96,000 | |
| Width (inches) | | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | |

As part of our program for continuous improvement, Camfil reserves the right to change specifications without notice. 2018.12.07

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Conover NC, Corcoran CA, Crystal Lake IL, Riverdale NJ,
Washington NC, Concord Ontario
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www.camfil.com



Total System Solutions

Wall Master Exhaust Fan

J&D Manufacturing's Wall Master exhaust fan offers high volume output and smooth, efficient operation. The heavy duty 18 gauge galvanized housing is strong, compact, and easy to install. J&D's Wall Master is a dependable fan suited for nearly any application including agricultural buildings, greenhouses, and warehouses.

When installing any J&D Manufacturing exhaust fan, you must provide a proper inlet. Call us today to help you choose the appropriate inlet and design an efficient ventilation system.



Features

- Available in 36" and 50" models
- Heavy duty 18 gauge galvanized housing
- Rugged X-frame for added stability on belt drive models
- Aluminum shutters with tie bar to prevent flapping and locking open
- 1" x 2" removable wire mesh guards are hot dip galvanized after welding
- Poly guard clips to reduce vibration for quiet performance
- 3, 4 or 6 blade galvanized propeller is balanced for smooth operation
- **Lifetime Warranty** on 3 blade cast aluminum props, available on select 50" models
- Bearings are eccentric locking, pre-lubricated, permanently sealed and rubber mounted for smooth operation and reduced blade fatigue, and are covered by a **Three Year Warranty**
- Spring belt tensioning system reduces bounce at startup on all belt driven models
- Optional weather hood available for protection from severe wind and weather
- Totally enclosed, maintenance-free, high-efficiency motors have completely sealed ball bearings, and are covered by a **Two Year Warranty**

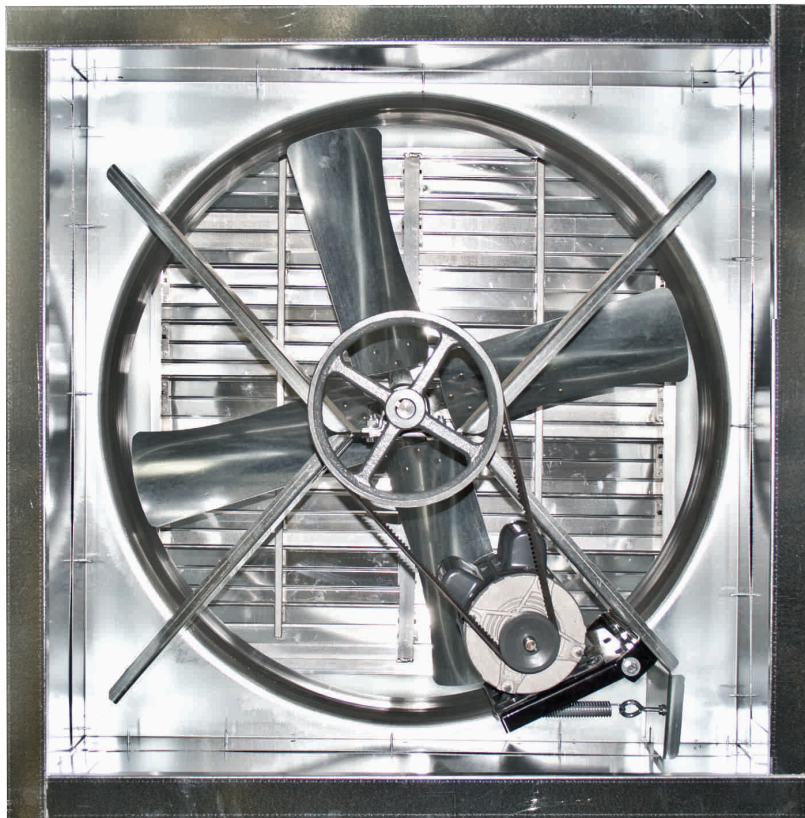


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⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.

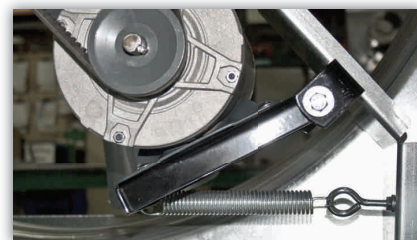
Wall Master Exhaust Fan



Heavy-duty X-frame - (Shown without rear guard for illustration purposes only)



Removable 12 Gauge 1" x 2" wire mesh guards are hot dip galvanized after welding. The guard is attached to the housing with poly guard clips to reduce noise and vibration.



Belt drive models include a heavy duty spring belt tensioner to reduce bounce at startup and provide uniform loading to increase the life of the belt and maintain high efficiency.

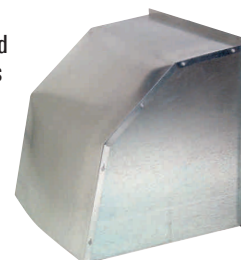
| Part# | Size | Phs | Spd | @0.05" SP | | Drive | Prop |
|---|------|-----|-----|-----------|------|--------|-------|
| | | | | CFM | Watt | | |
| Single Phase | | | | | | | |
| VF36DM | 36" | 1 | 1 | 10,100 | 19.5 | Direct | 3-Glv |
| VF36GG | 36" | 1 | 1 | 9,000 | 18.1 | Belt | 4-Glv |
| VF36GG1 | 36" | 1 | 1 | 11,500 | 15.2 | Belt | 4-Glv |
| VF36GG2 | 36" | 1 | 2 | 11,400 | 15.3 | Belt | 4-Glv |
| VF50GG | 50" | 1 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF50GG6 | 50" | 1 | 1 | 21,300 | 20.0 | Belt | 6-Glv |
| VF50GGCA | 50" | 1 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| Three Phase | | | | | | | |
| VF36DM3CF | 36" | 3 | 1 | 10,000 | 19.6 | Direct | 3-Glv |
| VF36GG3 | 36" | 3 | 1 | 11,400 | 15.1 | Belt | 4-Glv |
| VF503GG | 50" | 3 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF503GG6 | 50" | 3 | 1 | 21,200 | 20.2 | Belt | 6-Glv |
| VF503GGCA | 50" | 3 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| OSHA requires these fans to be mounted 7' above the floor | | | | | | | |

OSHA requires these fans to be mounted 7' above the floor

| Fan Size | Rough Opening |
|----------|---------------|
| 36" | 41"W x 41"H |
| 50" | 54¾"W x 54¾"H |

Optional Weather Hood

If Wall Master is mounted with the shutter side of the fan flush to an exterior wall a weather hood may be used on the exterior shutter side of the Wall Master to further protect the fan and shutter from severe winds and harsh weather.



| Wall Master Fan Size | Weather Hood Part# |
|----------------------|--------------------|
| 36" | VFT140860 |
| 50" | VFT140861 |

⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 2 | 5698.24 | 574867 | 0.0883609 | 5/6/19 11:37 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6928794 | 6.70217E+12 | 0.0283682 | 0.8777121 | 2.6928794 |
| 3 | 5704.01 | 574867 | 0.0884504 | 5/6/19 11:42 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6956062 | 6.70217E+12 | 0.0256247 | 0.7928282 | 2.6956062 |
| 4 | 5721.16 | 574868 | 0.0878003 | 5/6/19 11:47 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6757929 | 6.70217E+12 | 0.0266466 | 0.8244458 | 2.6757929 |
| 5 | 5712.77 | 574868 | 0.0876715 | 5/6/19 11:52 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6718689 | 6.70217E+12 | 0.0294184 | 0.9102053 | 2.6718689 |
| 6 | 5702.98 | 574868 | 0.0875213 | 5/6/19 11:57 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6672901 | 6.70217E+12 | 0.2156316 | 6.6716417 | 6.6716417 |
| 7 | 5711.53 | 574868 | 0.0876525 | 5/6/19 12:02 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.671289 | 6.70217E+12 | 0.4257598 | 13.1730082 | 13.1730082 |
| 8 | 5719.99 | 574868 | 0.0877823 | 5/6/19 12:08 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.6752457 | 6.70217E+12 | 0.2947237 | 9.1187513 | 9.1187513 |
| 9 | 5711.93 | 574869 | 0.0870193 | 5/6/19 12:13 | 0.0319112 | 0.9873325 | 4.89954E+13 | 2.6510913 | 6.70217E+12 | 0.1560219 | 4.8273176 | 4.8273176 |
| 10 | 5708.01 | 574871 | 0.0868646 | 5/6/19 12:18 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6472769 | 6.70217E+12 | 0.0253548 | 0.7844775 | 2.6472769 |
| 11 | 5701.9 | 574871 | 0.0867716 | 5/6/19 12:23 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6444432 | 6.70217E+12 | 0.027036 | 0.8364938 | 2.6444432 |
| 12 | 5698.51 | 574871 | 0.08672 | 5/6/19 12:28 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.642871 | 6.70217E+12 | 0.026636 | 0.8241178 | 2.642871 |
| 13 | 5705.99 | 574875 | 0.0875317 | 5/6/19 13:07 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6676082 | 6.70217E+12 | 0.0297482 | 0.9204093 | 2.6676082 |
| 14 | 5706.72 | 574875 | 0.0875429 | 5/6/19 13:11 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6679495 | 6.70217E+12 | 0.0283545 | 0.8772882 | 2.6679495 |
| 15 | 5702.01 | 574875 | 0.0874707 | 5/6/19 13:16 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6657475 | 6.70217E+12 | 0.0263671 | 0.8157981 | 2.6657475 |
| 16 | 5703.44 | 574876 | 0.0881359 | 5/6/19 13:21 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6860221 | 6.70217E+12 | 0.027458 | 0.8495505 | 2.6860221 |
| 17 | 5705.99 | 574876 | 0.0881753 | 5/6/19 13:26 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687223 | 6.70217E+12 | 0.0295297 | 0.9136489 | 2.687223 |
| 18 | 5706.85 | 574876 | 0.0881886 | 5/6/19 13:31 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687628 | 6.70217E+12 | 0.029437 | 0.9107808 | 2.687628 |
| 19 | 5726.52 | 574876 | 0.0884926 | 5/6/19 13:36 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6968915 | 6.70217E+12 | 0.0294468 | 0.911084 | 2.6968915 |
| 20 | 5727.41 | 574876 | 0.0885064 | 5/6/19 13:41 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6973107 | 6.70217E+12 | 0.0291977 | 0.9033768 | 2.6973107 |
| 21 | 5742.95 | 574876 | 0.0887465 | 5/6/19 13:46 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7046292 | 6.70217E+12 | 0.0461903 | 1.4291279 | 2.7046292 |
| 22 | 5734.03 | 574876 | 0.0886086 | 5/6/19 13:51 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7004284 | 6.70217E+12 | 0.0300478 | 0.9296789 | 2.7004284 |
| 23 | 5731.45 | 574876 | 0.0885688 | 5/6/19 13:56 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6992133 | 6.70217E+12 | 0.023358 | 0.7722695 | 2.6992133 |
| 24 | 5739.99 | 574877 | 0.0901743 | 5/6/19 14:01 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7481417 | 6.70217E+12 | 0.0252541 | 0.7813619 | 2.7481417 |
| 25 | 5749.1 | 574877 | 0.0903174 | 5/6/19 14:06 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7525033 | 6.70217E+12 | 0.022385 | 0.6925919 | 2.7525033 |
| 26 | 5732.99 | 574877 | 0.0900643 | 5/6/19 14:11 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7447903 | 6.70217E+12 | 0.0278815 | 0.8626536 | 2.7447903 |
| 27 | 5722.65 | 574878 | 0.0904991 | 5/6/19 14:16 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7580421 | 6.70217E+12 | 0.0276273 | 0.8547887 | 2.7580421 |
| 28 | 5719.43 | 574878 | 0.0904482 | 5/6/19 14:21 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7564902 | 6.70217E+12 | 0.0401146 | 1.2411457 | 2.7564902 |
| 29 | 5727.52 | 574878 | 0.0905761 | 5/6/19 14:26 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7603892 | 6.70217E+12 | 0.0357633 | 1.1065165 | 2.7603892 |
| 30 | 5719.12 | 574878 | 0.0904433 | 5/6/19 14:31 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7563408 | 6.70217E+12 | 0.0216376 | 0.6694673 | 2.7563408 |
| 31 | 5720.06 | 574880 | 0.0904384 | 5/6/19 14:37 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7561911 | 6.70217E+12 | 0.0206897 | 0.6401393 | 2.7561911 |
| 32 | 5730.64 | 574880 | 0.0906057 | 5/6/19 14:42 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7612891 | 6.70217E+12 | 0.0212322 | 0.6569243 | 2.7612891 |
| 33 | 5734.69 | 574880 | 0.0906697 | 5/6/19 14:47 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7632406 | 6.70217E+12 | 0.0214839 | 0.6647119 | 2.7632406 |
| 34 | 5739.31 | 574881 | 0.090775 | 5/6/19 14:52 | 0.0292446 | 0.9048279 | 4.71935E+13 | 2.7664494 | 6.70217E+12 | 0.0212921 | 0.6587776 | 2.7664494 |
| 35 | 5736.72 | 574882 | 0.0910352 | 5/6/19 14:57 | 0.0292446 | 0.9048279 | 4.70373E+13 | 2.7743811 | 6.70217E+12 | 0.020696 | 0.6403342 | 2.7743811 |
| 36 | 5741.99 | 574883 | 0.0905084 | 5/6/19 15:02 | 0.0212846 | 0.6585455 | 4.73545E+13 | 2.7583257 | 6.70217E+12 | 0.0203623 | 0.6300096 | 2.7583257 |
| 37 | 5733.24 | 574885 | 0.0890821 | 5/6/19 15:07 | 0.0212846 | 0.6585455 | 4.80395E+13 | 2.7148565 | 6.70217E+12 | 0.0198016 | 0.6126615 | 2.7148565 |
| 38 | 5724.73 | 574886 | 0.0885552 | 5/6/19 15:12 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6988006 | 6.70217E+12 | 0.0190006 | 0.5878786 | 2.6988006 |
| 39 | 5709.73 | 574886 | 0.0883232 | 5/6/19 15:17 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6917292 | 6.70217E+12 | 0.0184907 | 0.5721023 | 2.6917292 |
| 40 | 5678.11 | 574887 | 0.088385 | 5/6/19 15:22 | 0.0212846 | 0.6585455 | 4.79528E+13 | 2.6936119 | 6.70217E+12 | 0.023136 | 0.7158278 | 2.6936119 |
| 41 | 5683.73 | 574888 | 0.0873487 | 5/6/19 15:27 | 0.0212846 | 0.6585455 | 4.85697E+13 | 2.6620299 | 6.70217E+12 | 0.0165815 | 0.5130316 | 2.6620299 |
| 42 | 5681.84 | 574891 | 0.0832705 | 5/6/19 15:32 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.53477429 | 6.70217E+12 | 0.0157946 | 0.4886849 | 2.53477429 |
| 43 | 5697.16 | 574891 | 0.083495 | 5/6/19 15:37 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.5445855 | 6.70217E+12 | 0.0722406 | 2.2351242 | 2.5445855 |
| 44 | 5684.36 | 574892 | 0.0835678 | 5/6/19 15:42 | 0.0212846 | 0.6585455 | 5.07728E+13 | 2.5468044 | 6.70217E+12 | 0.025128 | 0.7774603 | 2.5468044 |
| 45 | 5683.95 | 574894 | 0.0819393 | 5/6/19 15:47 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.4971743 | 6.70217E+12 | 0.0141482 | 0.4377453 | 2.4971743 |
| 46 | 5700.28 | 574894 | 0.0821747 | 5/6/19 15:52 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.5043487 | 6.70217E+12 | 0.0158794 | 0.4913086 | 2.5043487 |
| 47 | 5700.01 | 574895 | 0.0825354 | 5/6/19 15:57 | 0.0212846 | 0.6585455 | 5.15494E+13 | 2.5153441 | 6.70217E+12 | 0.0142467 | 0.4407929 | 2.5153441 |
| 48 | 5696.94 | 574897 | 0.0824036 | 5/6/19 16:02 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5113225 | 6.70217E+12 | 0.0193804 | 0.5996296 | 2.5113225 |
| 49 | 5700.76 | 574897 | 0.0824588 | 5/6/19 16:07 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5130065 | 6.70217E+12 | 0.0145181 | 0.44919 | 2.5130065 |
| 50 | 5684.53 | 574897 | 0.0822241 | 5/6/19 16:12 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.505852 | 6.70217E+12 | 0.0157287 | 0.486646 | 2.505852 |
| 51 | 5689.74 | 574897 | 0.0822994 | 5/6/19 16:18 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5081486 | 6.70217E+12 | 0.0162324 | 0.5023205 | 2.5081486 |
| 52 | 5682.26 | 574897 | 0.0821912 | 5/6/19 16:23 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5048513 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 53 | 5686.59 | 574898 | 0.0828228 | 5/6/19 16:28 | 0.0282033 | 0.8726101 | 5.12496E+13 | 2.5240987 | 6.70217E+12 | 0.0148626 | 0.4598488 | 2.5240987 |
| 54 | 5681.45 | 574899 | 0.0829971 | 5/6/19 16:33 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5294123 | 6.70217E+12 | 0.0141661 | 0.4382991 | 2.5294123 |
| 55 | 5684.86 | 574899 | 0.0830469 | 5/6/19 16:38 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5309305 | 6.70217E+12 | 0.0039202 | 0.121291 | 2.5309305 |
| 56 | 5679.5 | 574899 | 0.0829686 | 5/6/19 16:43 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5285442 | 6.70217E+12 | 0.0059038 | 0.1826636 | 2.5285442 |
| 57 | 5681.53 | 574901 | 0.0836257 | 5/6/19 16:48 | 0.0282033 | 0.8726101 | 5.07124E+13 | 2.5485671 | 6.70217E+12 | 0.0056964 | 0.1762466 | 2.5485671 |
| 58 | 5689.99 | 574902 | 0.0837969 | 5/6/19 16:53 | 0.0282033 | 0.8726101 | 5.06841E+13 | 2.5537859 | 6.70217E+12 | 0.0098804 | 0.3056996 | 2.5537859 |
| 59 | 5691.01 | 574903 | 0.0831196 | 5/6/19 16:58 | 0.0282033 | 0.8726101 | 5.11063E+13 | 2.5331438 | 6.70217E+12 | 0.0072672 | 0.2248472 | 2.5331438 |
| 60 | 5699.02 | 574904 | 0.0827156 | 5/6/19 17:03 | 0.0245371 | 0.7591779 | 5.14281E+13 | 2.5208339 | 6.70217E+12 | 0.0100674 | 0.3114854 | 2.5208339 |
| 61 | 5700.57 | 574905 | 0.0827554 | 5/6/19 17:08 | 0.0245371 | 0.7591779 | 5.14174E+13 | 2.5220451 | 6.70217E+12 | 0.0086099 | 0.26663903 | 2.5220451 |
| 62 | 5695.51 | 574906 | 0.0812506 | 5/6/19 17:13 | 0.0245371 | 0.7591779 | 5.23232E+13 | 2.4761856 | 6.70217E+12 | 0.0053846 | 0.1665995 | 2.4761856 |
| 63 | 5694.8 | 574907 | 0.0809439 | 5/6/19 17:18 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4668388 | 6.70217E+12 | 0.0017196 | 0.0532044 | 2.4668388 |
| 64 | 5695.29 | 574907 | 0.0809509 | 5/6/19 17:23 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.467051 | 6.70217E+12 | 0.0048459 | 0.1499321 | 2.467051 |
| 65 | 5711.94 | 574907 | 0.0811875 | 5/6/19 17:28 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4742634 | 6.70217E+12 | 0.0072046 | 0.2229103 | 2.4742634 |
| 66 | 5717.52 | 574908 | 0.0815164 | 5/6/19 17:33 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4842862 | 6.70217E+12 | 0.0173188 | 0.5358437 | 2.4842862 |
| 67 | 5717.19 | 574908 | 0.0815117 | 5/6/19 17:38 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4841428 | 6.70217E+12 | 0.0107967 | 0.3340499 | 2.4841428 |
| 68 | 5709.94 | 574908 | 0.0814083 | 5/6/19 17:43 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4809927 | 6.70217E+12 | 0.0175668 | 0.5435168 | 2.4809927 |
| 69 | 5706.05 | 574908 | 0.0813529 | 5/6/19 17:48 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4793025 | 6.70217E+12 | 0.0040943 | 0.1266776 | 2.4793025 |
| 70 | 5698.01 | 574909 | 0.0821371 | 5/6/19 17:53 | 0.0245371 | 0.7591779 | 5.17812E+13 | 2.5032013 | 6.70217E+12 | 0.0062052 | 0.1919889 | 2.5032013 |
| 71 | 5704.79 | 574909 | 0.0822348 | 5/6/19 17:59 | 0.0245371 | 0.7591779 | 5.17812E+13 | 2.5061798 | 6.70217E+12 | 0.0060673 | 0.1877223 | 2.5061798 |
| 72 | 5706.81 | 574909 | 0.0822639 | 5/6/19 18:04 | 0.0188872 | 0.58437 | 5.17812E+13 | 2.5070672 | 6.70217E+12 | 0.004964 | 0.1535862 | 2.5070672 |
| 73 | 5699.44 | 574910 | 0.0819668 | 5/6/19 18:09 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4980119 | 6.70217E+12 | 0.0096617 | 0.298933 | 2.4980119 |
| 74 | 5697.53 | 574910 | 0.0819393 | 5/6/19 18:14 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4971748 | 6.70217E+12 | 0.0094749 | 0.2931534 | 2.4971748 |
| 75 | 5693.01 | 574910 | 0.0818743 | 5/6/19 18:19 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4951937 | 6.70217E+12 | 0.0097717 | 0.3023364 | 2.4951937 |
| 76 | 5693.01 | 574910 | 0.0818743 | 5/6/19 18:24 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4951937 | 6.70217E+12 | 0.0113155 | 0.3501016 | 2.4951937 |
| 77 | 5693.94 | 574911 | 0.0828462 | 5/6/19 18:29 | 0.0188872 | 0.58437 | 5.13013E+13 | 2.5248113 | 6.70217E+12 | -0.0060949 | -0.1885762 | 2.5248113 |
| 78 | 5699.57 | 574911 | 0.0829281 | 5/6/19 18:34 | 0.0188872 | 0.58437 | 5.13013E+13 | 2.5273078 | 6.70217E+12 | 0.0003233 | 0.0100029 | 2.5273078 |
| 79 | 5698.15 | 574912 | 0.0833531 | 5/6/19 18:39 | 0.0188872 | 0.58437 | 5.1027E+13 | 2.540262 | 6.70217E+12 | 0.0028852 | 0.0892681 | 2.540262 |
| 80 | 5693.81 | 574913 | 0.0834471 | 5/6/19 18:44 | 0.0188872 | 0.58437 | 5.09307E+13 | 2.5431267 | 6.70217E+12 | 0.0066411 | 0.2054756 | 2.5431267 |
| 81 | 5686.01 | 574914 | 0.0818977 | 5/6/19 18:49 | 0.0188872 | 0.58437 | 5.18232E+13 | 2.4959076 | 6.70217E+12 | 0.0059357 | 0.1836506 | 2.4959076 |
| 82 | 5685.94 | 574915 | 0.0814507 | 5/6/19 18:54 | 0.0188872 | 0.58437 | 5.21069E+13 | 2.4822846 | 6.70217E+12 | -0.0011344 | -0.0350983 | 2.4822846 |
| 83 | 5683.4 | 574915 | 0.0814144 | 5/6/19 18:59 | 0.0188872 | 0.58437 | 5.21069E+13 | 2.4811757 | 6.70217E+12 | 0.0001905 | 0.0058941 | 2.4811757 |
| 84 | 5694.85 | 574915 | 0.0815784 | 5/6/19 19:04 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.4861744 | 6.70217E+12 | 0.0002833 | 0.0087653 | 2.4861744 |
| 85 | 5721.14 | 574915 | 0.081955 | 5/6/19 19:09 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.4976517 | 6.70217E+12 | 0.0025406 | 0.0786062 | 2.4976517 |
| 86 | 5732.53 | 574915 | 0.0821181 | 5/6/19 19:14 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5026242 | 6.70217E+12 | 0.0016449 | 0.0508932 | 2.5026242 |
| 87 | 5732.74 | 574915 | 0.0821211 | 5/6/19 19:19 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5027159 | 6.70217E+12 | 0.0041178 | 0.1274047 | 2.5027159 |
| 88 | 5730.27 | 574915 | 0.0820848 | 5/6/19 19:24 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.501607 | 6.70217E+12 | -0.000019 | -0.0005879 | 2.501607 |
| 89 | 5737.27 | 574915 | 0.082186 | 5/6/19 19:29 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5046935 | 6.70217E+12 | -0.0002028 | -0.0062746 | 2.5046935 |
| 90 | 5731.74 | 574915 | 0.0821068 | 5/6/19 19:34 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5027293 | 6.70217E+12 | 0.0002309 | 0.007144 | 2.5027293 |
| 91 | 5727.94 | 574915 | 0.0820524 | 5/6/19 19:40 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5006204 | 6.70217E+12 | 0.0130869 | 0.4049087 | 2.5006204 |
| 92 | 5741.23 | 574915 | 0.0822428 | 5/6/19 19:45 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5064223 | 6.70217E+12 | 0.0122933 | 0.3803547 | 2.5064223 |
| 93 | 5740.52 | 574915 | 0.0822326 | 5/6/19 19:50 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5061123 | 6.70217E+12 | 0.0089193 | 0.2759631 | 2.5061123 |
| 94 | 5749.19 | 574916 | 0.08668 | 5/6/19 19:55 | 0.0193163 | 0.5976463 | 4.9508E+13 | 2.6416525 | 6.70217E+12 | 0.0021355 | 0.0660724 | 2.6416525 |
| 95 | 5745.01 | 574916 | 0.086617 | 5/6/19 20:00 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6397319 | 6.70217E+12 | -0.001813 | -0.0560942 | 2.6397319 |
| 96 | 5763.99 | 574916 | 0.0869032 | 5/6/19 20:05 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6484528 | 6.70217E+12 | -0.0003708 | -0.0114726 | 2.6484528 |
| 97 | 5769.68 | 574916 | 0.086989 | 5/6/19 20:10 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6510673 | 6.70217E+12 | 0.0062241 | 0.1925737 | 2.6510673 |
| 98 | 5769.14 | 574917 | 0.0882187 | 5/6/19 20:15 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6885453 | 6.70217E+12 | 0.0116013 | 0.3589442 | 2.6885453 |
| 99 | 5755.39 | 574917 | 0.0880085 | 5/6/19 20:20 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6821375 | 6.70217E+12 | 0.0009813 | 0.0303614 | 2.6821375 |
| 100 | 5754.1 | 574917 | 0.0879887 | 5/6/19 20:25 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6815363 | 6.70217E+12 | -0.0161407 | -0.4993933 | 2.6815363 |
| 101 | 5771.1 | 574917 | 0.0882487 | 5/6/19 20:30 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6894587 | 6.70217E+12 | -0.0174708 | -0.5405466 | 2.6894587 |
| 102 | 5764.05 | 574918 | 0.0890788 | 5/6/19 20:35 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.714756 | 6.70217E+12 | -0.0175085 | -0.541713 | 2.714756 |
| 103 | 5752.2 | 574918 | 0.0888956 | 5/6/19 20:40 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7091749 | 6.70217E+12 | -0.0038463 | -0.1190045 | 2.7091749 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 104 | 5755.49 | 574918 | 0.0889465 | 5/6/19 20:45 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7107244 | 6.70217E+12 | -0.0004318 | -0.0133599 | 2.7107244 |
| 105 | 5762.02 | 574919 | 0.0902091 | 5/6/19 20:50 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7492027 | 6.70217E+12 | 0.0004104 | 0.0216978 | 2.7492027 |
| 106 | 5760.7 | 574919 | 0.0901884 | 5/6/19 20:55 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7485729 | 6.70217E+12 | -0.0009508 | -0.0294178 | 2.7485729 |
| 107 | 5762.49 | | 0.0902164 | 5/6/19 21:02 | 0.0175071 | 0.5416697 | 4.76774E+13 | 2.749427 | | 0.0007073 | 0.0218839 | 2.749427 |
| 108 | 5774.99 | 574920 | 0.1001885 | 5/6/19 21:19 | 0.0175071 | 0.5242793 | 4.74463E+13 | 2.9553058 | 6.70217E+12 | -0.0013119 | -0.039287 | 2.9553058 |
| 109 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 110 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 111 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 112 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 113 | 5843.89 | 574923 | 0.1041911 | 5/6/19 21:52 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0733748 | 6.70217E+12 | 0.0001052 | 0.0031504 | 3.0733748 |
| 114 | 5889.14 | 574923 | 0.1049979 | 5/6/19 21:57 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0971724 | 6.70217E+12 | 0.0047856 | 0.1433128 | 3.0971724 |
| 115 | 5938.96 | 574925 | 0.1060149 | 5/6/19 22:02 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1271721 | 6.70217E+12 | 0.0012328 | 0.0369183 | 3.1271721 |
| 116 | 5924.06 | 574925 | 0.105749 | 5/6/19 22:07 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1193265 | 6.70217E+12 | -0.0018354 | -0.549683 | 3.1193265 |
| 117 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:15 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 118 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 119 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 120 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 121 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 122 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 123 | 5900.68 | 574927 | 0.1057464 | 5/6/19 22:23 | 0.0137884 | 0.4129166 | 4.59309E+13 | 3.119251 | 6.70217E+12 | 0.0035913 | 0.1075475 | 3.119251 |
| 124 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 125 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 126 | 5898.4 | 574930 | 0.1031447 | 5/6/19 22:35 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0425064 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0425064 |
| 127 | 5893.05 | 574930 | 0.1030511 | 5/6/19 22:37 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0397468 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0397468 |
| 128 | 5897.36 | 574930 | 0.1031265 | 5/6/19 22:42 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.04197 | 6.70217E+12 | -0.0236925 | -0.7095114 | 3.04197 |
| 129 | 5899.22 | 574931 | 0.1032757 | 5/6/19 22:47 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.046371 | 6.70217E+12 | -0.0155618 | -0.466024 | 3.046371 |
| 130 | 5901.5 | 574931 | 0.1033156 | 5/6/19 22:52 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.0475484 | 6.70217E+12 | -0.0215767 | -0.6461502 | 3.0475484 |
| 131 | 5895.01 | 574932 | 0.1028817 | 5/6/19 22:57 | 0.0137884 | 0.4129166 | 4.71645E+13 | 3.0347496 | 6.70217E+12 | -0.0188905 | -0.5657075 | 3.0347496 |
| 132 | 5882.85 | 574943 | 0.1003326 | 5/7/19 0:02 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9595589 | 6.70217E+12 | -0.002652 | -0.0794186 | 2.9595589 |
| 133 | 5891.99 | 574943 | 0.1004885 | 5/7/19 0:07 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9641571 | 6.70217E+12 | 0.0003922 | 0.0117451 | 2.9641571 |
| 134 | 5896.7 | 574944 | 0.1020246 | 5/7/19 0:12 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0094662 | 6.70217E+12 | 0.0109642 | 0.3283412 | 3.0094662 |
| 135 | 5903.84 | 574944 | 0.1021481 | 5/7/19 0:17 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0131102 | 6.70217E+12 | 0.0001877 | 0.005621 | 3.0131102 |
| 136 | 5911.06 | 574944 | 0.102273 | 5/7/19 0:22 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0167951 | 6.70217E+12 | -0.0190565 | -0.5706787 | 3.0167951 |
| 137 | 5885.39 | 574945 | 0.1028414 | 5/7/19 0:27 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0335618 | 6.70217E+12 | -0.005721 | -0.1713249 | 3.0335618 |
| 138 | 5895.99 | 574945 | 0.1030267 | 5/7/19 0:32 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0390254 | 6.70217E+12 | 0.005387 | 0.1613227 | 3.0390254 |
| 139 | 5897.07 | 574945 | 0.1030455 | 5/7/19 0:37 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0395821 | 6.70217E+12 | 0.0090961 | 0.2723979 | 3.0395821 |
| 140 | 5898.51 | 574945 | 0.1030707 | 5/7/19 0:42 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0403243 | 6.70217E+12 | 0.0000416 | 0.0012458 | 3.0403243 |
| 141 | 5901.99 | 574945 | 0.1031315 | 5/7/19 0:47 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0421181 | 6.70217E+12 | 0.0002217 | 0.0066392 | 3.0421181 |
| 142 | 5889.59 | 574946 | 0.1043197 | 5/7/19 0:52 | 0.0098383 | 0.2946243 | 4.64716E+13 | 3.0771656 | 6.70217E+12 | -0.0026672 | -0.0798737 | 3.0771656 |
| 143 | 5889.01 | 574947 | 0.1040736 | 5/7/19 0:57 | 0.0098383 | 0.2946243 | 4.65768E+13 | 3.0699085 | 6.70217E+12 | -0.0003307 | -0.0099034 | 3.0699085 |
| 144 | 5877.69 | 574947 | 0.1038736 | 5/7/19 1:02 | 0.0105202 | 0.3150449 | 4.65768E+13 | 3.0640074 | 6.70217E+12 | -0.0003011 | -0.0090169 | 3.0640074 |
| 145 | 5889.43 | 574948 | 0.1042298 | 5/7/19 1:07 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0745154 | 6.70217E+12 | -0.0001362 | -0.0040787 | 3.0745154 |
| 146 | 5887.99 | 574948 | 0.1042043 | 5/7/19 1:12 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0737637 | 6.70217E+12 | 0.0091898 | 0.2752039 | 3.0737637 |
| 147 | 5867.4 | 574948 | 0.1038399 | 5/7/19 1:17 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0630149 | 6.70217E+12 | 0.0091883 | 0.275159 | 3.0630149 |
| 148 | 5883.85 | 574950 | 0.1044213 | 5/7/19 1:22 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0801634 | 6.70217E+12 | 0.0098517 | 0.2950256 | 3.0801634 |
| 149 | 5871.24 | 574950 | 0.1041975 | 5/7/19 1:27 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0735621 | 6.70217E+12 | 0.0110652 | 0.3313659 | 3.0735621 |
| 150 | 5870.35 | 574950 | 0.1041817 | 5/7/19 1:32 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0730962 | 6.70217E+12 | 0.0117356 | 0.3514421 | 3.0730962 |
| 151 | 5880.51 | 574950 | 0.104362 | 5/7/19 1:37 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0784149 | 6.70217E+12 | 0.0114298 | 0.3422844 | 3.0784149 |
| 152 | 5887.56 | 574951 | 0.1056193 | 5/7/19 1:42 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1155019 | 6.70217E+12 | 0.0158031 | 0.4732502 | 3.1155019 |
| 153 | 5888.94 | 574951 | 0.1056441 | 5/7/19 1:47 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1162321 | 6.70217E+12 | 0.0139082 | 0.4165042 | 3.1162321 |
| 154 | 5890.07 | 574951 | 0.1056643 | 5/7/19 1:52 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1168301 | 6.70217E+12 | 0.0141407 | 0.4234668 | 3.1168301 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 155 | 5887.93 | 574952 | 0.1061226 | 5/7/19 1:57 | 0.0105202 | 0.3150449 | 4.56692E+13 | 3.1303483 | 6.70217E+12 | 0.0129154 | 0.3867732 | 3.1303483 |
| 156 | 5879.77 | 574953 | 0.1056897 | 5/7/19 2:02 | 0.011378 | 0.3407332 | 4.57927E+13 | 3.117579 | 6.70217E+12 | 0.0142018 | 0.4252966 | 3.117579 |
| 157 | 5880.52 | 574954 | 0.1043159 | 5/7/19 2:07 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0770561 | 6.70217E+12 | 0.0139436 | 0.4175643 | 3.0770561 |
| 158 | 5875.01 | 574954 | 0.1042182 | 5/7/19 2:12 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.074173 | 6.70217E+12 | 0.0105143 | 0.3148682 | 3.074173 |
| 159 | 5873.6 | 574954 | 0.1041932 | 5/7/19 2:17 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0734352 | 6.70217E+12 | 0.0094361 | 0.2825797 | 3.0734352 |
| 160 | 5871.85 | 574955 | 0.1044686 | 5/7/19 2:22 | 0.011378 | 0.3407332 | 4.62656E+13 | 3.0815582 | 6.70217E+12 | 0.0088951 | 0.2663786 | 3.0815582 |
| 161 | 5871.01 | 574956 | 0.103617 | 5/7/19 2:27 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0564397 | 6.70217E+12 | 0.0093072 | 0.2787196 | 3.0564397 |
| 162 | 5859.85 | 574956 | 0.1034201 | 5/7/19 2:32 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0506298 | 6.70217E+12 | 0.0120542 | 0.3609831 | 3.0506298 |
| 163 | 5865.94 | 574956 | 0.1035275 | 5/7/19 2:37 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0538003 | 6.70217E+12 | 0.0128926 | 0.3860904 | 3.0538003 |
| 164 | 5869.1 | 574956 | 0.1035833 | 5/7/19 2:42 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0554454 | 6.70217E+12 | 0.0141064 | 0.4224397 | 3.0554454 |
| 165 | 5877.6 | 574956 | 0.1037333 | 5/7/19 2:47 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0598705 | 6.70217E+12 | 0.0141304 | 0.4231584 | 3.0598705 |
| 166 | 5877.18 | 574957 | 0.1057538 | 5/7/19 2:52 | 0.011378 | 0.3407332 | 4.57448E+13 | 3.1194692 | 6.70217E+12 | 0.0141067 | 0.4224486 | 3.1194692 |
| 167 | 5885.01 | 574958 | 0.1054291 | 5/7/19 2:57 | 0.011378 | 0.3407332 | 4.59468E+13 | 3.1098919 | 6.70217E+12 | 0.0188926 | 0.5657704 | 3.1098919 |
| 168 | 5882.93 | 574958 | 0.1056834 | 5/7/19 3:02 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1173937 | 6.70217E+12 | 0.0159616 | 0.4779967 | 3.1173937 |
| 169 | 5880.11 | 574959 | 0.1056328 | 5/7/19 3:07 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1158994 | 6.70217E+12 | 0.0162983 | 0.4880798 | 3.1158994 |
| 170 | 5876.76 | 574959 | 0.1055726 | 5/7/19 3:12 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1141242 | 6.70217E+12 | 0.0123771 | 0.3706529 | 3.1141242 |
| 171 | 5875.44 | 574959 | 0.1055489 | 5/7/19 3:17 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1134247 | 6.70217E+12 | 0.0104838 | 0.3139549 | 3.1134247 |
| 172 | 5868.65 | 574959 | 0.1054269 | 5/7/19 3:22 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1098266 | 6.70217E+12 | 0.0135372 | 0.405394 | 3.1098266 |
| 173 | 5871.6 | 574959 | 0.1054799 | 5/7/19 3:27 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1113899 | 6.70217E+12 | 0.0142273 | 0.4260602 | 3.1113899 |
| 174 | 5871.6 | 574959 | 0.1054799 | 5/7/19 3:32 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1113899 | 6.70217E+12 | 0.0143862 | 0.4308187 | 3.1113899 |
| 175 | 5877.57 | 574959 | 0.1055871 | 5/7/19 3:37 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1145534 | 6.70217E+12 | 0.0142716 | 0.4273868 | 3.1145534 |
| 176 | 5876.48 | 574959 | 0.1055676 | 5/7/19 3:42 | 0.010606 | 0.3312281 | 4.582E+13 | 3.1139758 | 6.70217E+12 | 0.0142134 | 0.425644 | 3.1139758 |
| 177 | 5868.98 | 574960 | 0.109055 | 5/7/19 3:47 | 0.010606 | 0.3312281 | 4.42981E+13 | 3.2168461 | 6.70217E+12 | 0.0124885 | 0.3739889 | 3.2168461 |
| 178 | 5865.34 | 574960 | 0.1089874 | 5/7/19 3:52 | 0.010606 | 0.3312281 | 4.42981E+13 | 3.2148509 | 6.70217E+12 | 0.0128153 | 0.3837755 | 3.2148509 |
| 179 | 5869.73 | 574961 | 0.1097753 | 5/7/19 3:57 | 0.010606 | 0.3312281 | 4.40131E+13 | 3.2380924 | 6.70217E+12 | 0.0125425 | 0.3756061 | 3.2380924 |
| 180 | 5876.57 | 574962 | 0.1082718 | 5/7/19 4:02 | 0.0132424 | 0.3965657 | 4.46763E+13 | 3.1937442 | 6.70217E+12 | 0.012019 | 0.359929 | 3.1937442 |
| 181 | 5864.77 | 574962 | 0.1080544 | 5/7/19 4:07 | 0.0132424 | 0.3965657 | 4.46763E+13 | 3.1873313 | 6.70217E+12 | 0.0116681 | 0.3494207 | 3.1873313 |
| 182 | 5870.49 | 574963 | 0.1086102 | 5/7/19 4:12 | 0.0132424 | 0.3965657 | 4.4491E+13 | 3.2037267 | 6.70217E+12 | 0.012883 | 0.3858029 | 3.2037267 |
| 183 | 5892.85 | 574964 | 0.1086378 | 5/7/19 4:17 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.2045387 | 6.70217E+12 | 0.0113387 | 0.3395563 | 3.2045387 |
| 184 | 5893.36 | 574964 | 0.1086472 | 5/7/19 4:22 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.204816 | 6.70217E+12 | 0.0115719 | 0.3465398 | 3.204816 |
| 185 | 5890.81 | 574964 | 0.1086002 | 5/7/19 4:27 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.2034293 | 6.70217E+12 | 0.0118547 | 0.3550087 | 3.2034293 |
| 186 | 5894.23 | 574965 | 0.1080396 | 5/7/19 4:32 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1868941 | 6.70217E+12 | 0.0122344 | 0.3663795 | 3.1868941 |
| 187 | 5898.56 | 574965 | 0.108119 | 5/7/19 4:37 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1892353 | 6.70217E+12 | 0.0138738 | 0.4154741 | 3.1892353 |
| 188 | 5908.64 | 574965 | 0.1083037 | 5/7/19 4:42 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1946853 | 6.70217E+12 | 0.014388 | 0.4308726 | 3.1946853 |
| 189 | 5915.11 | 574965 | 0.1084223 | 5/7/19 4:47 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1981835 | 6.70217E+12 | 0.0166224 | 0.4977855 | 3.1981835 |
| 190 | 5909.7 | 574965 | 0.1083231 | 5/7/19 4:52 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1952584 | 6.70217E+12 | 0.0144629 | 0.4331156 | 3.1952584 |
| 191 | 5906.81 | 574966 | 0.1085559 | 5/7/19 4:57 | 0.0132424 | 0.3965657 | 4.47887E+13 | 3.2021242 | 6.70217E+12 | 0.014704 | 0.4403358 | 3.2021242 |
| 192 | 5914.74 | 574966 | 0.1087016 | 5/7/19 5:02 | 0.0163996 | 0.4911134 | 4.47887E+13 | 3.2064231 | 6.70217E+12 | 0.0082133 | 0.245961 | 3.2064231 |
| 193 | 5917.1 | 574967 | 0.109481 | 5/7/19 5:07 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2294129 | 6.70217E+12 | 0.0137796 | 0.4126531 | 3.2294129 |
| 194 | 5912.39 | 574967 | 0.1093939 | 5/7/19 5:12 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2268423 | 6.70217E+12 | 0.0156701 | 0.4692673 | 3.2268423 |
| 195 | 5894.35 | 574968 | 0.1094478 | 5/7/19 5:17 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2284315 | 6.70217E+12 | 0.0146488 | 0.4386827 | 3.2284315 |
| 196 | 5898.35 | 574968 | 0.109522 | 5/7/19 5:22 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2306223 | 6.70217E+12 | 0.0145908 | 0.4369458 | 3.2306223 |
| 197 | 5902.16 | 574969 | 0.1079698 | 5/7/19 5:27 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1848344 | 6.70217E+12 | 0.0155564 | 0.4658623 | 3.1848344 |
| 198 | 5900.85 | 574969 | 0.1079458 | 5/7/19 5:32 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1841275 | 6.70217E+12 | 0.0134736 | 0.4034894 | 3.1841275 |
| 199 | 5900.34 | 574969 | 0.1079365 | 5/7/19 5:37 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1838523 | 6.70217E+12 | 0.0130804 | 0.3917144 | 3.1838523 |
| 200 | 5898.32 | 574969 | 0.1078995 | 5/7/19 5:42 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1827623 | 6.70217E+12 | 0.0152049 | 0.4553361 | 3.1827623 |
| 201 | 5896.02 | 574970 | 0.1092694 | 5/7/19 5:47 | 0.0163996 | 0.4911134 | 4.44149E+13 | 3.2231712 | 6.70217E+12 | 0.0153738 | 0.4603941 | 3.2231712 |
| 202 | 5901.06 | 574971 | 0.1070272 | 5/7/19 5:52 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1570311 | 6.70217E+12 | 0.0162384 | 0.486286 | 3.1570311 |
| 203 | 5889.23 | 574971 | 0.1068126 | 5/7/19 5:57 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1507021 | 6.70217E+12 | 0.0142736 | 0.4274168 | 3.1507021 |
| 204 | 5888.81 | 574971 | 0.106805 | 5/7/19 6:02 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1504774 | 6.70217E+12 | 0.0140196 | 0.4198403 | 3.1504774 |
| 205 | 5888.88 | 574971 | 0.1068063 | 5/7/19 6:07 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1505149 | 6.70217E+12 | 0.0128572 | 0.3850303 | 3.1505149 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 206 | 5894.99 | 574971 | 0.1069171 | 5/7/19 6:12 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1537837 | 6.70217E+12 | 0.0139901 | 0.4189569 | 3.1537837 |
| 207 | 5888.93 | 574973 | 0.1083283 | 5/7/19 6:17 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1954116 | 6.70217E+12 | 0.0169327 | 0.5070779 | 3.1954116 |
| 208 | 5883.23 | 574973 | 0.1082235 | 5/7/19 6:22 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1923187 | 6.70217E+12 | 0.0161834 | 0.4846389 | 3.1923187 |
| 209 | 5874.07 | 574973 | 0.108055 | 5/7/19 6:27 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1873483 | 6.70217E+12 | 0.0160255 | 0.4799103 | 3.1873483 |
| 210 | 5873.01 | 574975 | 0.1081041 | 5/7/19 6:32 | 0.0219988 | 0.6587907 | 4.47185E+13 | 3.1887959 | 6.70217E+12 | 0.0161849 | 0.4846838 | 3.1887959 |
| 211 | 5877.1 | 574977 | 0.1051264 | 5/7/19 6:37 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1009613 | 6.70217E+12 | 0.0160886 | 0.4817999 | 3.1009613 |
| 212 | 5883.19 | 574977 | 0.1052353 | 5/7/19 6:42 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1041746 | 6.70217E+12 | 0.01829 | 0.5477245 | 3.1041746 |
| 213 | 5883.91 | 574979 | 0.1039877 | 5/7/19 6:47 | 0.0219988 | 0.6587907 | 4.6575E+13 | 3.0673739 | 6.70217E+12 | 0.0197193 | 0.5905273 | 3.0673739 |
| 214 | 5887.01 | 574980 | 0.1024096 | 5/7/19 6:52 | 0.0219988 | 0.6587907 | 4.73176E+13 | 3.0208243 | 6.70217E+12 | 0.0172624 | 0.5169513 | 3.0208243 |
| 215 | 5890.93 | 574981 | 0.1023627 | 5/7/19 6:57 | 0.0219988 | 0.6587907 | 4.73708E+13 | 3.0194404 | 6.70217E+12 | 0.0219934 | 0.658629 | 3.0194404 |
| 216 | 5891.99 | 574981 | 0.1023811 | 5/7/19 7:02 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0199837 | 6.70217E+12 | 0.0190854 | 0.5715441 | 3.0199837 |
| 217 | 5901.6 | 574981 | 0.1025481 | 5/7/19 7:07 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0249094 | 6.70217E+12 | 0.022021 | 0.6594555 | 3.0249094 |
| 218 | 5900.12 | 574982 | 0.1027094 | 5/7/19 7:12 | 0.0252156 | 0.7551232 | 4.72845E+13 | 3.0296666 | 6.70217E+12 | 0.019538 | 0.585098 | 3.0296666 |
| 219 | 5902.76 | 574982 | 0.1021815 | 5/7/19 7:17 | 0.0252156 | 0.7551232 | 4.75501E+13 | 3.0140942 | 6.70217E+12 | 0.0208005 | 0.6229056 | 3.0140942 |
| 220 | 5901.94 | 574985 | 0.1025203 | 5/7/19 7:22 | 0.0252156 | 0.7551232 | 4.73864E+13 | 3.0240881 | 6.70217E+12 | 0.0333844 | 0.9997515 | 3.0240881 |
| 221 | 5902.21 | 574986 | 0.1024856 | 5/7/19 7:27 | 0.0252156 | 0.7551232 | 4.74046E+13 | 3.0230648 | 6.70217E+12 | 0.0226755 | 0.6790556 | 3.0230648 |
| 222 | 5897.09 | 574987 | 0.1012514 | 5/7/19 7:32 | 0.0252156 | 0.7551232 | 4.79408E+13 | 2.9866604 | 6.70217E+12 | 0.0258656 | 0.7745885 | 2.9866604 |
| 223 | 5891.39 | 574988 | 0.1001624 | 5/7/19 7:37 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9545379 | 6.70217E+12 | 0.0217027 | 0.6499235 | 2.9545379 |
| 224 | 5896.98 | 574988 | 0.1002575 | 5/7/19 7:42 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9573413 | 6.70217E+12 | 0.0181457 | 0.5434032 | 2.9573413 |
| 225 | 5915.01 | 574989 | 0.0992602 | 5/7/19 7:47 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9279253 | 6.70217E+12 | 0.0175618 | 0.5259174 | 2.9279253 |
| 226 | 5909.89 | 574989 | 0.0991743 | 5/7/19 7:52 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9253909 | 6.70217E+12 | 0.0176235 | 0.5276651 | 2.9253909 |
| 227 | 5907.41 | 574990 | 0.0997661 | 5/7/19 7:57 | 0.0252156 | 0.7551232 | 4.87396E+13 | 2.9428486 | 6.70217E+12 | 0.2076065 | 6.2171227 | 6.2171227 |
| 228 | 5909.98 | 574990 | 0.0998095 | 5/7/19 8:02 | 0.0276548 | 0.8281691 | 4.87396E+13 | 2.9441289 | 6.70217E+12 | 0.3509108 | 10.5086088 | 10.5086088 |
| 229 | 5885.9 | 574991 | 0.1001084 | 5/7/19 8:07 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9529431 | 6.70217E+12 | 1.0618156 | 31.7978378 | 31.7978378 |
| 230 | 5894.01 | 574991 | 0.1002463 | 5/7/19 8:12 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9570118 | 6.70217E+12 | 0.3477068 | 10.4126596 | 10.4126596 |
| 231 | 5901.61 | 574991 | 0.1003756 | 5/7/19 8:17 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9608247 | 6.70217E+12 | 0.2233212 | 6.6877255 | 6.6877255 |
| 232 | 5901.01 | 574993 | 0.0990295 | 5/7/19 8:22 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9211197 | 6.70217E+12 | 0.1839307 | 5.5081114 | 5.5081114 |
| 233 | 5896.99 | 574993 | 0.098962 | 5/7/19 8:27 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9191298 | 6.70217E+12 | 0.2097637 | 6.2817236 | 6.2817236 |
| 234 | 5903.12 | 574994 | 0.0985656 | 5/7/19 8:32 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9074343 | 6.70217E+12 | 0.0304959 | 0.9132506 | 2.9074343 |
| 235 | 5904.99 | 574994 | 0.0985968 | 5/7/19 8:37 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9083554 | 6.70217E+12 | 0.0229099 | 0.6860751 | 2.9083554 |
| 236 | 5928.02 | 574994 | 0.0989813 | 5/7/19 8:42 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9196982 | 6.70217E+12 | 0.023268 | 0.696799 | 2.9196982 |
| 237 | 5918.93 | 574994 | 0.0988295 | 5/7/19 8:47 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9152212 | 6.70217E+12 | 0.0200853 | 0.6014878 | 2.9152212 |
| 238 | 5920.48 | 574994 | 0.0988554 | 5/7/19 8:52 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9159846 | 6.70217E+12 | 0.02447 | 0.7327949 | 2.9159846 |
| 239 | 5927.27 | 574996 | 0.1000578 | 5/7/19 8:57 | 0.0276548 | 0.8281691 | 4.8761E+13 | 2.9514506 | 6.70217E+12 | 0.0185494 | 0.5554927 | 2.9514506 |
| 240 | 5970.03 | 574997 | 0.0973284 | 5/7/19 9:02 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8709404 | 6.70217E+12 | 0.0182697 | 0.5471166 | 2.8709404 |
| 241 | 5896.92 | 574997 | 0.0961365 | 5/7/19 9:07 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8357824 | 6.70217E+12 | 0.0189375 | 0.567115 | 2.8357824 |
| 242 | 5876.01 | 574998 | 0.0954385 | 5/7/19 9:12 | 0.0268411 | 0.8038015 | 5.06789E+13 | 2.8151949 | 6.70217E+12 | 0.0203296 | 0.6088038 | 2.8151949 |
| 243 | 5818.78 | 574999 | 0.0935121 | 5/7/19 9:17 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.758369 | 6.70217E+12 | 0.0194987 | 0.5839211 | 2.758369 |
| 244 | 5836.61 | 574999 | 0.0937986 | 5/7/19 9:22 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7668213 | 6.70217E+12 | 0.0190273 | 0.5698042 | 2.7668213 |
| 245 | 5852.94 | 574999 | 0.094061 | 5/7/19 9:27 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7745624 | 6.70217E+12 | 0.0201623 | 0.6037937 | 2.7745624 |
| 246 | 5843.39 | 575000 | 0.0949282 | 5/7/19 9:32 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8001417 | 6.70217E+12 | 0.0195915 | 0.5867001 | 2.8001417 |
| 247 | 5840.9 | 575000 | 0.0948878 | 5/7/19 9:37 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.7989485 | 6.70217E+12 | 0.0208798 | 0.6252804 | 2.7989485 |
| 248 | 5844.44 | 575000 | 0.0949453 | 5/7/19 9:42 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8006448 | 6.70217E+12 | 0.0199536 | 0.5975438 | 2.8006448 |
| 249 | 5831.94 | 575001 | 0.0948603 | 5/7/19 9:47 | 0.0268411 | 0.8038015 | 5.06054E+13 | 2.7981392 | 6.70217E+12 | 0.0196606 | 0.5887694 | 2.7981392 |
| 250 | 5840.78 | 575003 | 0.0941941 | 5/7/19 9:52 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7784869 | 6.70217E+12 | 0.0187964 | 0.5628895 | 2.7784869 |
| 251 | 5839.47 | 575003 | 0.094173 | 5/7/19 9:57 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7778637 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7778637 |
| 252 | 5836.55 | 575003 | 0.0941259 | 5/7/19 9:58 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7764747 | 6.70217E+12 | 0.0188057 | 0.561368 | 2.7764747 |
| 253 | 5843.59 | 575003 | 0.0942394 | 5/7/19 10:03 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7798236 | 6.70217E+12 | 0.0202762 | 0.6072046 | 2.7798236 |
| 254 | 5851.93 | 575003 | 0.0943739 | 5/7/19 10:08 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.783791 | 6.70217E+12 | 0.0195808 | 0.5863797 | 2.783791 |
| 255 | 5840.6 | 575003 | 0.0941912 | 5/7/19 10:13 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7784013 | 6.70217E+12 | 0.0202654 | 0.6068812 | 2.7784013 |
| 256 | 5841.73 | 575003 | 0.0942094 | 5/7/19 10:18 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7789388 | 6.70217E+12 | 0.020167 | 0.6039344 | 2.7789388 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 257 | 5837.26 | 575004 | 0.0966021 | 5/7/19 10:23 | 0.0287164 | 0.8599605 | 4.97383E+13 | 2.8495172 | 6.70217E+12 | 0.0196567 | 0.5886526 | 2.8495172 |
| 258 | 5843.1 | 575004 | 0.0966987 | 5/7/19 10:28 | 0.0287164 | 0.8599605 | 4.97383E+13 | 2.852368 | 6.70217E+12 | 0.0207215 | 0.6205399 | 2.852368 |
| 259 | 5843.45 | 575005 | 0.0974035 | 5/7/19 10:35 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.871576 | 6.70217E+12 | 0.0201838 | 0.6044375 | 2.8731576 |
| 260 | 5841.01 | 575005 | 0.0973629 | 5/7/19 10:35 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8719579 | 6.70217E+12 | 0.0198071 | 0.5931566 | 2.8719579 |
| 261 | 5844.02 | 575005 | 0.097413 | 5/7/19 10:42 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8734379 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8734379 |
| 262 | 5844.02 | 575005 | 0.097413 | 5/7/19 10:43 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8734379 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8734379 |
| 263 | 5843.32 | 575005 | 0.0974014 | 5/7/19 10:43 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730937 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8730937 |
| 264 | 5843.32 | 575005 | 0.0974014 | 5/7/19 10:44 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730937 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8730937 |
| 265 | 5843.18 | 575005 | 0.097399 | 5/7/19 10:45 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730249 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8730249 |
| 266 | 5843.18 | 575005 | 0.097399 | 5/7/19 10:46 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730249 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8730249 |
| 267 | 5843.81 | 575005 | 0.0974095 | 5/7/19 10:48 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8733347 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8733347 |
| 268 | 5855.01 | 575005 | 0.0975962 | 5/7/19 10:51 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8788416 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8788416 |
| 269 | 5853.18 | 575005 | 0.0975657 | 5/7/19 10:52 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8779418 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8779418 |
| 270 | 5853.18 | 575005 | 0.0975657 | 5/7/19 10:53 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8779418 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8779418 |
| 271 | 5854.99 | 575005 | 0.0975959 | 5/7/19 10:58 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8788317 | 6.70217E+12 | 0.0204901 | 0.6136102 | 2.8788317 |
| 272 | 5855.01 | 575005 | 0.0975962 | 5/7/19 11:03 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.8788416 | 6.70217E+12 | 0.019272 | 0.5771322 | 2.8788416 |
| 273 | 5862.23 | 575005 | 0.0977166 | 5/7/19 11:08 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.8823916 | 6.70217E+12 | 0.0185107 | 0.5543338 | 2.8823916 |
| 274 | 5868.68 | 575005 | 0.0978241 | 5/7/19 11:13 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.885563 | 6.70217E+12 | 0.0182389 | 0.5461943 | 2.885563 |
| 275 | 5877.1 | 575005 | 0.0979644 | 5/7/19 11:18 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.889703 | 6.70217E+12 | 0.0175485 | 0.5255191 | 2.889703 |
| 276 | 5880.82 | 575006 | 0.1020763 | 5/7/19 11:23 | 0.0273473 | 0.8189605 | 4.74222E+13 | 3.0109929 | 6.70217E+12 | 0.0171425 | 0.5133607 | 3.0109929 |
| 277 | 5885.64 | 575007 | 0.1017322 | 5/7/19 11:28 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.000843 | 6.70217E+12 | 0.0161012 | 0.4821773 | 3.000843 |
| 278 | 5888.81 | 575007 | 0.101787 | 5/7/19 11:33 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.0024592 | 6.70217E+12 | 0.0167836 | 0.5026129 | 3.0024592 |
| 279 | 5887.01 | 575007 | 0.1017559 | 5/7/19 11:38 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.0015415 | 6.70217E+12 | 0.017405 | 0.5212217 | 3.0015415 |
| 280 | 5885.87 | 575009 | 0.1022383 | 5/7/19 11:43 | 0.0273473 | 0.8189605 | 4.73877E+13 | 3.0157712 | 6.70217E+12 | 0.0181379 | 0.5431696 | 3.0157712 |
| 281 | 5882.45 | 575010 | 0.1025602 | 5/7/19 11:48 | 0.0273473 | 0.8189605 | 4.72115E+13 | 3.0252654 | 6.70217E+12 | 0.0188967 | 0.5658932 | 3.0252654 |
| 282 | 5889.31 | 575010 | 0.1026798 | 5/7/19 11:53 | 0.0273473 | 0.8189605 | 4.72115E+13 | 3.0287934 | 6.70217E+12 | 0.0191234 | 0.5726821 | 3.0287934 |
| 283 | 5888.74 | 575011 | 0.1032466 | 5/7/19 11:58 | 0.0273473 | 0.8189605 | 4.69478E+13 | 3.0455122 | 6.70217E+12 | 0.0189953 | 0.5688459 | 3.0455122 |
| 284 | 5894.74 | 575011 | 0.1033518 | 5/7/19 12:03 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0486153 | 6.70217E+12 | 0.0201972 | 0.6048388 | 3.0486153 |
| 285 | 5895.72 | 575011 | 0.1033689 | 5/7/19 12:08 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0491221 | 6.70217E+12 | 0.0246114 | 0.7370294 | 3.0491221 |
| 286 | 5907.12 | 575011 | 0.1035688 | 5/7/19 12:13 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0550179 | 6.70217E+12 | 0.0195085 | 0.5842145 | 3.0550179 |
| 287 | 5908.19 | 575013 | 0.1040015 | 5/7/19 12:18 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0677806 | 6.70217E+12 | 0.0177224 | 0.5307268 | 3.0677806 |
| 288 | 5895.99 | 575013 | 0.1037867 | 5/7/19 12:23 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0614459 | 6.70217E+12 | 0.0163821 | 0.4905893 | 3.0614459 |
| 289 | 5898.02 | 575014 | 0.1043706 | 5/7/19 12:27 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0786681 | 6.70217E+12 | 0.0162962 | 0.4880169 | 3.0786681 |
| 290 | 5895.6 | 575014 | 0.1043278 | 5/7/19 12:32 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0774049 | 6.70217E+12 | 0.0164602 | 0.4929281 | 3.0774049 |
| 291 | 5887.34 | 575016 | 0.1041844 | 5/7/19 12:37 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0731761 | 6.70217E+12 | 0.0200409 | 0.6001582 | 3.0731761 |
| 292 | 5889.4 | 575016 | 0.1042209 | 5/7/19 12:42 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0742514 | 6.70217E+12 | 0.0215114 | 0.6441947 | 3.0742514 |
| 293 | 5893.65 | 575016 | 0.1042961 | 5/7/19 12:47 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0764699 | 6.70217E+12 | 0.020945 | 0.6272329 | 3.0764699 |
| 294 | 5893.83 | 575018 | 0.1033386 | 5/7/19 12:52 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0482275 | 6.70217E+12 | 0.0215906 | 0.6465665 | 3.0482275 |
| 295 | 5890.09 | 575018 | 0.103273 | 5/7/19 12:57 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0462932 | 6.70217E+12 | 0.0199465 | 0.5973312 | 3.0462932 |
| 296 | 5887.86 | 575018 | 0.1032339 | 5/7/19 13:02 | 0.0260477 | 0.78000418 | 4.69465E+13 | 3.0451399 | 6.70217E+12 | 0.0182097 | 0.5453198 | 3.0451399 |
| 297 | 5877.45 | 575018 | 0.1030514 | 5/7/19 13:07 | 0.0260477 | 0.78000418 | 4.69465E+13 | 3.0397559 | 6.70217E+12 | 0.0171154 | 0.5125492 | 3.0397559 |
| 298 | 5880.76 | 575018 | 0.1031095 | 5/7/19 13:12 | 0.0260477 | 0.78000418 | 4.69465E+13 | 3.0414678 | 6.70217E+12 | 0.0158291 | 0.4740288 | 3.0414678 |
| 299 | 5885.01 | 575018 | 0.103184 | 5/7/19 13:17 | 0.0260477 | 0.78000418 | 4.69465E+13 | 3.0436659 | 6.70217E+12 | 0.0156969 | 0.4700698 | 3.0436659 |
| 300 | 5886.65 | 575019 | 0.105185 | 5/7/19 13:22 | 0.0260477 | 0.78000418 | 4.60663E+13 | 3.10269 | 6.70217E+12 | 0.0194576 | 0.5826903 | 3.10269 |
| 301 | 5886.81 | 575019 | 0.1051878 | 5/7/19 13:27 | 0.0260477 | 0.78000418 | 4.60663E+13 | 3.1027744 | 6.70217E+12 | 0.0237637 | 0.7116436 | 3.1027744 |
| 302 | 5886.02 | 575019 | 0.1051737 | 5/7/19 13:32 | 0.0260477 | 0.78000418 | 4.60663E+13 | 3.102358 | 6.70217E+12 | 0.034183 | 1.0236669 | 3.102358 |
| 303 | 5878.86 | 575019 | 0.1050458 | 5/7/19 13:37 | 0.0260477 | 0.78000418 | 4.60663E+13 | 3.0985841 | 6.70217E+12 | 0.0423059 | 14.443454 | 14.443454 |
| 304 | 5879.94 | 575019 | 0.1050651 | 5/7/19 13:42 | 0.0260477 | 0.78000418 | 4.60663E+13 | 3.0991534 | 6.70217E+12 | 0.1343145 | 4.0222716 | 4.0222716 |
| 305 | 5872.78 | 575020 | 0.1055767 | 5/7/19 13:47 | 0.0260477 | 0.78000418 | 4.57872E+13 | 3.1142442 | 6.70217E+12 | 0.0287544 | 0.8610984 | 3.1142442 |
| 306 | 5868.57 | 575020 | 0.105501 | 5/7/19 13:52 | 0.0260477 | 0.78000418 | 4.57872E+13 | 3.1120117 | 6.70217E+12 | 0.0442637 | 1.3255503 | 3.1120117 |
| 307 | 5877.6 | 575020 | 0.1056633 | 5/7/19 13:57 | 0.0260477 | 0.78000418 | 4.57872E+13 | 3.1168002 | 6.70217E+12 | 0.0156508 | 0.4686893 | 3.1168002 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 308 | 5880.3 | 575021 | 0.1070192 | 5/7/19 14:02 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.156795 | 6.70217E+12 | 0.0212368 | 0.6359714 | 3.156795 |
| 309 | 5873.1 | 575021 | 0.1068882 | 5/7/19 14:07 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1529297 | 6.70217E+12 | 0.0135226 | 0.4049568 | 3.1529297 |
| 310 | 5856.76 | 575021 | 0.1065908 | 5/7/19 14:12 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1441577 | 6.70217E+12 | 0.0161145 | 0.4825756 | 3.1441577 |
| 311 | 5835.32 | 575021 | 0.1062006 | 5/7/19 14:17 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1326478 | 6.70217E+12 | 0.021294 | 0.6376843 | 3.1326478 |
| 312 | 5823.7 | 575021 | 0.1059891 | 5/7/19 14:22 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1264097 | 6.70217E+12 | 0.0232619 | 0.6966164 | 3.1264097 |
| 313 | 5823.9 | 575021 | 0.1059927 | 5/7/19 14:27 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1265171 | 6.70217E+12 | 0.0186602 | 0.5588108 | 3.1265171 |
| 314 | 5844.51 | 575021 | 0.1063678 | 5/7/19 14:32 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1375814 | 6.70217E+12 | 0.0221179 | 0.6623574 | 3.1375814 |
| 315 | 5852.73 | 575022 | 0.1090264 | 5/7/19 14:37 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2160024 | 6.70217E+12 | 0.0160534 | 0.4807458 | 3.2160024 |
| 316 | 5842.59 | 575022 | 0.1088375 | 5/7/19 14:42 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2104306 | 6.70217E+12 | 0.0139152 | 0.4167139 | 3.2104306 |
| 317 | 5844.51 | 575023 | 0.1093454 | 5/7/19 14:47 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.225412 | 6.70217E+12 | 0.0096897 | 0.2901742 | 3.225412 |
| 318 | 5842.77 | 575023 | 0.1093128 | 5/7/19 14:52 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2244517 | 6.70217E+12 | 0.0082441 | 0.2468833 | 3.2244517 |
| 319 | 5843.27 | 575023 | 0.1093222 | 5/7/19 14:57 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2247277 | 6.70217E+12 | 0.0080116 | 0.2399207 | 3.2247277 |
| 320 | 5849.85 | 575023 | 0.1094453 | 5/7/19 15:02 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.228359 | 6.70217E+12 | 0.004172 | 0.1249375 | 3.228359 |
| 321 | 5844.11 | 575023 | 0.1093379 | 5/7/19 15:07 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2251913 | 6.70217E+12 | 0.0063173 | 0.1891821 | 3.2251913 |
| 322 | 5838.69 | 575023 | 0.1092365 | 5/7/19 15:12 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2222001 | 6.70217E+12 | 0.0074128 | 0.2219887 | 3.2222001 |
| 323 | 5843.57 | 575023 | 0.1093278 | 5/7/19 15:17 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2248932 | 6.70217E+12 | 0.0068169 | 0.2041434 | 3.2248932 |
| 324 | 5844.99 | 575023 | 0.1093469 | 5/7/19 15:22 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2254562 | 6.70217E+12 | 0.0173942 | 0.5208983 | 3.2254562 |
| 325 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:27 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0160868 | 0.481746 | 3.2284363 |
| 326 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:32 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0179579 | 0.5377792 | 3.2284363 |
| 327 | 5862.15 | 575023 | 0.1096754 | 5/7/19 15:37 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.235147 | 6.70217E+12 | 0.0185996 | 0.556996 | 3.235147 |
| 328 | 5861.7 | 575023 | 0.109667 | 5/7/19 15:42 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2348987 | 6.70217E+12 | 0.0164337 | 0.4921345 | 3.2348987 |
| 329 | 5871.48 | 575024 | 0.1144475 | 5/7/19 15:47 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.3759101 | 6.70217E+12 | 0.0172669 | 0.5170861 | 3.3759101 |
| 330 | 5859.1 | 575024 | 0.1142061 | 5/7/19 15:52 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.368792 | 6.70217E+12 | 0.0085437 | 0.2558553 | 3.368792 |
| 331 | 5854.1 | 575025 | 0.1144044 | 5/7/19 15:57 | 0.0200751 | 0.6011823 | 4.21197E+13 | 3.3746406 | 6.70217E+12 | 0.0200752 | 0.6011853 | 3.3746406 |
| 332 | 5843.22 | 575026 | 0.1144995 | 5/7/19 16:02 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3774456 | 6.70217E+12 | 0.0220984 | 0.6617734 | 3.3774456 |
| 333 | 5853.43 | 575026 | 0.1146996 | 5/7/19 16:07 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3833471 | 6.70217E+12 | 0.0156725 | 0.4693391 | 3.3833471 |
| 334 | 5856.16 | 575026 | 0.1147531 | 5/7/19 16:12 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.384925 | 6.70217E+12 | 0.0214597 | 0.6426465 | 3.384925 |
| 335 | 5854.02 | 575026 | 0.1147111 | 5/7/19 16:17 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3836881 | 6.70217E+12 | 0.0239835 | 0.7182259 | 3.3836881 |
| 336 | 5850.81 | 575026 | 0.1146482 | 5/7/19 16:22 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3818327 | 6.70217E+12 | 0.0167074 | 0.5003309 | 3.3818327 |
| 337 | 5854.62 | 575027 | 0.1163454 | 5/7/19 16:27 | 0.0216225 | 0.6475218 | 4.14207E+13 | 3.4318944 | 6.70217E+12 | 0.0156102 | 0.4674735 | 3.4318944 |
| 338 | 5855.8 | 575028 | 0.1157465 | 5/7/19 16:32 | 0.0216225 | 0.6475218 | 4.16435E+13 | 3.4142287 | 6.70217E+12 | 0.0163249 | 0.4888763 | 3.4142287 |
| 339 | 5856.74 | 575029 | 0.1142802 | 5/7/19 16:37 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3709755 | 6.70217E+12 | 0.0175314 | 0.525007 | 3.3709755 |
| 340 | 5868.02 | 575029 | 0.1145003 | 5/7/19 16:42 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3774679 | 6.70217E+12 | 0.0151098 | 0.4524881 | 3.3774679 |
| 341 | 5872.51 | 575029 | 0.1145879 | 5/7/19 16:47 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3800522 | 6.70217E+12 | 0.0146534 | 0.4388205 | 3.3800522 |
| 342 | 5871.99 | 575029 | 0.1145777 | 5/7/19 16:52 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3797529 | 6.70217E+12 | 0.0175759 | 0.5763396 | 3.3797529 |
| 343 | 5880.77 | 575029 | 0.1147491 | 5/7/19 16:57 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3848064 | 6.70217E+12 | 0.0063504 | 0.1901733 | 3.3848064 |
| 344 | 5889.98 | 575029 | 0.1149288 | 5/7/19 17:02 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3881217 | 6.70217E+12 | 0.0061338 | 0.1836869 | 3.3881217 |
| 345 | 5885.6 | 575031 | 0.1147437 | 5/7/19 17:07 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3901075 | 6.70217E+12 | 0.0028472 | 0.0852641 | 3.3901075 |
| 346 | 5883.88 | 575032 | 0.1144564 | 5/7/19 17:12 | 0.0204922 | 0.6136731 | 4.22212E+13 | 3.3846492 | 6.70217E+12 | 0.0111196 | 0.332995 | 3.3846492 |
| 347 | 5871.02 | 575033 | 0.114058 | 5/7/19 17:17 | 0.0204922 | 0.6136731 | 4.23148E+13 | 3.3761744 | 6.70217E+12 | 0.0197231 | 0.5906411 | 3.3761744 |
| 348 | 5872.05 | 575033 | 0.114078 | 5/7/19 17:22 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.3650113 | 6.70217E+12 | 0.0099314 | 0.2974123 | 3.3650113 |
| 349 | 5878.77 | 575034 | 0.1147072 | 5/7/19 17:27 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3835727 | 6.70217E+12 | 0.0135307 | 0.4051994 | 3.3835727 |
| 350 | 5877.4 | 575034 | 0.1146805 | 5/7/19 17:32 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3827841 | 6.70217E+12 | 0.0143791 | 0.4306061 | 3.3827841 |
| 351 | 5880.39 | 575034 | 0.1147388 | 5/7/19 17:37 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3845051 | 6.70217E+12 | 0.0171643 | 0.5140136 | 3.3845051 |
| 352 | 5871.98 | 575034 | 0.1145747 | 5/7/19 17:42 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3796646 | 6.70217E+12 | 0.0179472 | 0.5374588 | 3.3796646 |
| 353 | 5878.4 | 575035 | 0.1155377 | 5/7/19 17:47 | 0.0204922 | 0.6136731 | 4.18797E+13 | 3.4080684 | 6.70217E+12 | 0.0182428 | 0.5463111 | 3.4080684 |
| 354 | 5886.62 | 575035 | 0.1156992 | 5/7/19 17:52 | 0.0204922 | 0.6136731 | 4.18797E+13 | 3.4128341 | 6.70217E+12 | 0.0280718 | 0.8406568 | 3.4128341 |
| 355 | 5886.23 | 575036 | 0.1119906 | 5/7/19 17:57 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.3034392 | 6.70217E+12 | 0.4423178 | 13.2459437 | 13.2459437 |
| 356 | 5898.4 | 575036 | 0.1120318 | 5/7/19 18:02 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.304655 | 6.70217E+12 | 0.19554 | 5.8557712 | 5.8557712 |
| 357 | 5899.98 | 575036 | 0.1120618 | 5/7/19 18:07 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.3055402 | 6.70217E+12 | 0.0183816 | 0.5504676 | 3.3055402 |
| 358 | 5899.98 | 575036 | 0.1120618 | 5/7/19 18:13 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.3055402 | 6.70217E+12 | 0.0183816 | 0.5504676 | 3.3055402 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|----------------------|-------------|--------------|---------------|-------------------|--------------|-----------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev | |
| 359 | 5899.98 | 575037 | 0.1118805 | 5/7/19 18:18 | 0.0194272 | 0.5817799 | 4.34075E+13 | 3.3001905 | 6.70217E+12 | 0.0124839 | 0.3738512 | 3.3001905 |
| 360 | 5901.99 | 575039 | 0.1087922 | 5/7/19 18:23 | 0.0194272 | 0.5817799 | 4.46549E+13 | 3.2090942 | 6.70217E+12 | 0.0063404 | 0.1898738 | 3.2090942 |
| 361 | 5898.01 | 575040 | 0.1082466 | 5/7/19 18:28 | 0.0194272 | 0.5817799 | 4.48497E+13 | 3.1953006 | 6.70217E+12 | 0.0069752 | 0.208884 | 3.1930006 |
| 362 | 5899.19 | 575041 | 0.1069708 | 5/7/19 18:33 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1533672 | 6.70217E+12 | 0.0117867 | 0.3529724 | 3.1553672 |
| 363 | 5858.01 | 575041 | 0.1062241 | 5/7/19 18:38 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1333408 | 6.70217E+12 | 0.0008215 | 0.0246012 | 3.1333408 |
| 364 | 5832.84 | 575041 | 0.1057677 | 5/7/19 18:43 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1198778 | 6.70217E+12 | 0.007936 | 0.2376567 | 3.1198778 |
| 365 | 5825.57 | 575042 | 0.1062064 | 5/7/19 18:48 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.1328187 | 6.70217E+12 | 0.0131193 | 0.3928793 | 3.1328187 |
| 366 | 5730.23 | 575042 | 0.1044682 | 5/7/19 18:53 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.0815477 | 6.70217E+12 | 0.0147234 | 0.4409168 | 3.0815477 |
| 367 | 5765.61 | 575042 | 0.1051132 | 5/7/19 18:58 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.100574 | 6.70217E+12 | 0.015851 | 0.4746846 | 3.100574 |
| 368 | 5698.35 | 575042 | 0.103887 | 5/7/19 19:03 | 0.0208363 | 0.6239777 | 4.51499E+13 | 3.0644036 | 6.70217E+12 | 0.0143949 | 0.4310793 | 3.0644036 |
| 369 | 5728.93 | 575043 | 0.104596 | 5/7/19 19:08 | 0.0208363 | 0.6239777 | 4.50844E+13 | 3.0853184 | 6.70217E+12 | 0.0085453 | 0.2559033 | 3.0853184 |
| 370 | 5726.34 | 575044 | 0.1042417 | 5/7/19 19:13 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.0748672 | 6.70217E+12 | 0.0131066 | 0.392499 | 3.0748672 |
| 371 | 5721.68 | 575044 | 0.1041569 | 5/7/19 19:18 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.072365 | 6.70217E+12 | 0.0074483 | 0.2230518 | 3.072365 |
| 372 | 5740.89 | 575044 | 0.1045066 | 5/7/19 19:23 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.0826801 | 6.70217E+12 | 0.0220669 | 0.6608301 | 3.0826801 |
| 373 | 5739.97 | 575047 | 0.1037772 | 5/7/19 19:28 | 0.0208363 | 0.6239777 | 4.55277E+13 | 3.0611659 | 6.70217E+12 | 0.0206216 | 0.6175482 | 3.0611659 |
| 374 | 5762.15 | 575047 | 0.1041783 | 5/7/19 19:33 | 0.0208363 | 0.6239777 | 4.55277E+13 | 3.0729946 | 6.70217E+12 | 0.0227412 | 0.6810231 | 3.0729946 |
| 375 | 5772.32 | 575048 | 0.1046881 | 5/7/19 19:38 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0880343 | 6.70217E+12 | 0.0213669 | 0.6398674 | 3.0880343 |
| 376 | 5757.52 | 575048 | 0.1044197 | 5/7/19 19:43 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0801167 | 6.70217E+12 | 0.0192512 | 0.5765093 | 3.0801167 |
| 377 | 5780.76 | 575048 | 0.1048412 | 5/7/19 19:48 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0925494 | 6.70217E+12 | 0.0184615 | 0.5528604 | 3.0925494 |
| 378 | 5772.27 | 575049 | 0.1062044 | 5/7/19 19:53 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.1327595 | 6.70217E+12 | 0.0170593 | 0.5108692 | 3.1327595 |
| 379 | 5763.53 | 575049 | 0.1060435 | 5/7/19 19:58 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.128016 | 6.70217E+12 | 0.0193825 | 0.5804413 | 3.128016 |
| 380 | 5774.99 | 575049 | 0.1062544 | 5/7/19 20:03 | 0.0214057 | 0.6410294 | 4.47376E+13 | 3.1342357 | 6.70217E+12 | 0.0225229 | 0.6744858 | 3.1342357 |
| 381 | 5785.64 | 575050 | 0.1067275 | 5/7/19 20:08 | 0.0214057 | 0.6410294 | 4.46214E+13 | 3.1481898 | 6.70217E+12 | 0.0200782 | 0.6012752 | 3.1481898 |
| 382 | 5794.65 | 575051 | 0.1065264 | 5/7/19 20:13 | 0.0214057 | 0.6410294 | 4.47753E+13 | 3.1422582 | 6.70217E+12 | 0.0189119 | 0.5663484 | 3.1422582 |
| 383 | 5794.99 | 575052 | 0.105856 | 5/7/19 20:18 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1224836 | 6.70217E+12 | 0.0168789 | 0.5054668 | 3.1224836 |
| 384 | 5777.32 | 575052 | 0.1055332 | 5/7/19 20:23 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.11129625 | 6.70217E+12 | 0.0188787 | 0.5653541 | 3.1129625 |
| 385 | 5779.44 | 575052 | 0.1055719 | 5/7/19 20:28 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1141049 | 6.70217E+12 | 0.0185028 | 0.5540972 | 3.1141049 |
| 386 | 5784.49 | 575053 | 0.1069047 | 5/7/19 20:33 | 0.0214057 | 0.6410294 | 4.45386E+13 | 3.1534189 | 6.70217E+12 | 0.0168679 | 0.5051374 | 3.1534189 |
| 387 | 5792.26 | 575054 | 0.1071284 | 5/7/19 20:38 | 0.0214057 | 0.6410294 | 4.45053E+13 | 3.1600161 | 6.70217E+12 | 0.0100913 | 0.3022008 | 3.1600161 |
| 388 | 5794.99 | 575055 | 0.1078127 | 5/7/19 20:43 | 0.0214057 | 0.6410294 | 4.42437E+13 | 3.1802017 | 6.70217E+12 | 0.0159387 | 0.4773109 | 3.1802017 |
| 389 | 5798.99 | 575056 | 0.1065136 | 5/7/19 20:48 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1418807 | 6.70217E+12 | 0.0155694 | 0.4662516 | 3.1418807 |
| 390 | 5799.99 | 575056 | 0.1065319 | 5/7/19 20:53 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1424225 | 6.70217E+12 | 0.0120816 | 0.3618036 | 3.1424225 |
| 391 | 5792.47 | 575056 | 0.1063938 | 5/7/19 20:58 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1383482 | 6.70217E+12 | 0.0121052 | 0.3625104 | 3.1383482 |
| 392 | 5783.99 | 575057 | 0.1071229 | 5/7/19 21:03 | 0.0187353 | 0.5610598 | 4.4444E+13 | 3.1598544 | 6.70217E+12 | 0.0062082 | 0.1859149 | 3.1598544 |
| 393 | 5798.01 | 575060 | 0.1064196 | 5/7/19 21:08 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1391083 | 6.70217E+12 | 0.0101617 | 0.304309 | 3.1391083 |
| 394 | 5804.99 | 575060 | 0.1065477 | 5/7/19 21:13 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1428873 | 6.70217E+12 | 0.0147359 | 0.4412911 | 3.1428873 |
| 395 | 5804.47 | 575060 | 0.1065382 | 5/7/19 21:18 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1426058 | 6.70217E+12 | 0.0161425 | 0.4834141 | 3.1426058 |
| 396 | 5797.19 | 575061 | 0.1077196 | 5/7/19 21:23 | 0.0187353 | 0.5610598 | 4.42987E+13 | 3.1774565 | 6.70217E+12 | 0.0166747 | 0.4993517 | 3.1774565 |
| 397 | 5796.01 | 575062 | 0.1073179 | 5/7/19 21:28 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1656063 | 6.70217E+12 | 0.0162576 | 0.4868609 | 3.1656063 |
| 398 | 5796.91 | 575062 | 0.1073346 | 5/7/19 21:33 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1660978 | 6.70217E+12 | 0.0154972 | 0.4640895 | 3.1660978 |
| 399 | 5804.49 | 575063 | 0.1082426 | 5/7/19 21:38 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1928815 | 6.70217E+12 | 0.0140195 | 0.4198373 | 3.1928815 |
| 400 | 5807.51 | 575063 | 0.1082989 | 5/7/19 21:43 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1945427 | 6.70217E+12 | 0.0138085 | 0.4135185 | 3.1945427 |
| 401 | 5806.56 | 575064 | 0.107581 | 5/7/19 21:48 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1733683 | 6.70217E+12 | 0.0123646 | 0.3702786 | 3.1733683 |
| 402 | 5797.78 | 575064 | 0.1074184 | 5/7/19 21:53 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1685699 | 6.70217E+12 | 0.0135325 | 0.4052533 | 3.1685699 |
| 403 | 5793.65 | 575064 | 0.1073419 | 5/7/19 21:58 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1663128 | 6.70217E+12 | 0.0143717 | 0.4303845 | 3.1663128 |
| 404 | 5778.02 | 575065 | 0.1070536 | 5/7/19 22:03 | 0.0092857 | 0.2780758 | 4.44269E+13 | 3.1578114 | 6.70217E+12 | 0.0159167 | 0.4766521 | 3.1578114 |
| 405 | 5773.43 | 575066 | 0.1052104 | 5/7/19 22:08 | 0.0092857 | 0.2780758 | 4.51693E+13 | 3.1034402 | 6.70217E+12 | 0.0153253 | 0.4589417 | 3.1034402 |
| 406 | 5779.39 | 575067 | 0.1054664 | 5/7/19 22:13 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1109906 | 6.70217E+12 | 0.0139439 | 0.4175733 | 3.1109906 |
| 407 | 5791.59 | 575067 | 0.105689 | 5/7/19 22:18 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1175577 | 6.70217E+12 | 0.0131096 | 0.3925888 | 3.1175577 |
| 408 | 5790.02 | 575067 | 0.1056603 | 5/7/19 22:23 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1167126 | 6.70217E+12 | 0.0122573 | 0.3670653 | 3.1167126 |
| 409 | 5782.94 | 575067 | 0.1055311 | 5/7/19 22:28 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1129015 | 6.70217E+12 | 0.0136306 | 0.408191 | 3.1129015 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 410 | 5775.43 | 575067 | 0.1053941 | 5/7/19 22:33 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1088589 | 6.70217E+12 | 0.0135185 | 0.404834 | 3.1088589 |
| 411 | 5779.99 | 575068 | 0.1067775 | 5/7/19 22:38 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1496656 | 6.70217E+12 | 0.0130395 | 0.3904896 | 3.1496656 |
| 412 | 5785.55 | 575068 | 0.1068802 | 5/7/19 22:43 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1526954 | 6.70217E+12 | 0.0132167 | 0.3957967 | 3.1526954 |
| 413 | 5776.9 | 575070 | 0.1064823 | 5/7/19 22:48 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1409571 | 6.70217E+12 | 0.0151927 | 0.4549707 | 3.1409571 |
| 414 | 5782.35 | 575070 | 0.1065827 | 5/7/19 22:53 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1439203 | 6.70217E+12 | 0.0127496 | 0.381808 | 3.1439203 |
| 415 | 5778.56 | 575070 | 0.1065129 | 5/7/19 22:58 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1418596 | 6.70217E+12 | 0.01094 | 0.3276165 | 3.1418596 |
| 416 | 5807.88 | 575077 | 0.1057164 | 5/8/19 0:03 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1183659 | 6.70217E+12 | 0.0116913 | 0.3501155 | 3.1183659 |
| 417 | 5804.11 | 575077 | 0.1056478 | 5/8/19 0:08 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1163417 | 6.70217E+12 | 0.0120928 | 0.3621391 | 3.1163417 |
| 418 | 5801.23 | 575078 | 0.1058179 | 5/8/19 0:13 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1213604 | 6.70217E+12 | 0.0121536 | 0.3639598 | 3.1213604 |
| 419 | 5791.66 | 575078 | 0.1056434 | 5/8/19 0:18 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1162113 | 6.70217E+12 | 0.0124538 | 0.3729498 | 3.1162113 |
| 420 | 5795.5 | 575078 | 0.1057134 | 5/8/19 0:23 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1182774 | 6.70217E+12 | 0.0132227 | 0.3959758 | 3.1182774 |
| 421 | 5795.98 | 575079 | 0.1065412 | 5/8/19 0:28 | 0.010744 | 0.321747 | 4.47794E+13 | 3.1426942 | 6.70217E+12 | 0.0133711 | 0.4004199 | 3.1426942 |
| 422 | 5799.99 | 575081 | 0.102499 | 5/8/19 0:33 | 0.010744 | 0.321747 | 4.65775E+13 | 3.0234621 | 6.70217E+12 | 0.0173409 | 0.5193022 | 3.0234621 |
| 423 | 5804.41 | 575082 | 0.1023697 | 5/8/19 0:38 | 0.010744 | 0.321747 | 4.66719E+13 | 3.0196463 | 6.70217E+12 | 0.0172819 | 0.5175353 | 3.0196463 |
| 424 | 5804.82 | 575084 | 0.1015622 | 5/8/19 0:43 | 0.010744 | 0.321747 | 4.70463E+13 | 2.9958274 | 6.70217E+12 | 0.0175389 | 0.5252316 | 2.9958274 |
| 425 | 5802.49 | 575086 | 0.0989662 | 5/8/19 0:48 | 0.010744 | 0.321747 | 4.82609E+13 | 2.9192535 | 6.70217E+12 | 0.0173835 | 0.5205779 | 2.9192535 |
| 426 | 5795.31 | 575086 | 0.0988438 | 5/8/19 0:53 | 0.010744 | 0.321747 | 4.82609E+13 | 2.9156412 | 6.70217E+12 | 0.0147548 | 0.4418571 | 2.9156412 |
| 427 | 5799.55 | 575087 | 0.0990391 | 5/8/19 0:58 | 0.010744 | 0.321747 | 4.8201E+13 | 2.9214025 | 6.70217E+12 | 0.0135535 | 0.4058821 | 2.9214025 |
| 428 | 5810.52 | 575087 | 0.0992264 | 5/8/19 1:03 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9269284 | 6.70217E+12 | 0.0126685 | 0.3793793 | 2.9269284 |
| 429 | 5818.01 | 575087 | 0.0993543 | 5/8/19 1:08 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9307013 | 6.70217E+12 | 0.0083531 | 0.2501475 | 2.9307013 |
| 430 | 5819.24 | 575089 | 0.0985572 | 5/8/19 1:13 | 0.0116366 | 0.3484774 | 4.86011E+13 | 2.9071881 | 6.70217E+12 | 0.0126493 | 0.3788044 | 2.9071881 |
| 431 | 5817.19 | 575090 | 0.0973429 | 5/8/19 1:18 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8713676 | 6.70217E+12 | 0.0126278 | 0.3781605 | 2.8713676 |
| 432 | 5820.91 | 575090 | 0.0974051 | 5/8/19 1:23 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8732038 | 6.70217E+12 | 0.0125071 | 0.374546 | 2.8732038 |
| 433 | 5831.99 | 575090 | 0.0975905 | 5/8/19 1:28 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8786729 | 6.70217E+12 | 0.0125147 | 0.3747735 | 2.8786729 |
| 434 | 5837.72 | 575090 | 0.0976864 | 5/8/19 1:33 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8815012 | 6.70217E+12 | 0.0030723 | 0.0920051 | 2.8815012 |
| 435 | 5825.57 | 575090 | 0.0974831 | 5/8/19 1:38 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.875504 | 6.70217E+12 | 0.0007008 | 0.0209866 | 2.875504 |
| 436 | 5834.9 | 575090 | 0.0976392 | 5/8/19 1:43 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8801093 | 6.70217E+12 | 0.002842 | 0.0851084 | 2.8801093 |
| 437 | 5839.94 | 575090 | 0.0977235 | 5/8/19 1:49 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.882597 | 6.70217E+12 | 0.0029206 | 0.0874622 | 2.882597 |
| 438 | 5834.68 | 575090 | 0.0976355 | 5/8/19 1:54 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8800007 | 6.70217E+12 | 0.0037273 | 0.1116202 | 2.8800007 |
| 439 | 5827.66 | 575090 | 0.0975181 | 5/8/19 1:59 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8765356 | 6.70217E+12 | 0.0045235 | 0.1354637 | 2.8765356 |
| 440 | 5833.57 | 575090 | 0.0976717 | 5/8/19 2:04 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8794528 | 6.70217E+12 | 0.005794 | 0.173511 | 2.8794528 |
| 441 | 5837.02 | 575090 | 0.0976747 | 5/8/19 2:09 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8811557 | 6.70217E+12 | 0.0120927 | 0.3621361 | 2.8811557 |
| 442 | 5834.82 | 575091 | 0.1021121 | 5/8/19 2:14 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0120484 | 6.70217E+12 | 0.0138694 | 0.4153423 | 3.0120484 |
| 443 | 5832.01 | 575091 | 0.1020629 | 5/8/19 2:19 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0105978 | 6.70217E+12 | 0.0243003 | 0.727713 | 3.0105978 |
| 444 | 5827.28 | 575091 | 0.1019802 | 5/8/19 2:24 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0081561 | 6.70217E+12 | 0.0146496 | 0.4387067 | 3.0081561 |
| 445 | 5814.3 | 575091 | 0.101753 | 5/8/19 2:29 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0014556 | 6.70217E+12 | 0.013417 | 0.4017944 | 3.0014556 |
| 446 | 5822.06 | 575092 | 0.1015212 | 5/8/19 2:34 | 0.0119665 | 0.3583568 | 4.72051E+13 | 2.9946169 | 6.70217E+12 | 0.013794 | 0.4130843 | 2.9946169 |
| 447 | 5827.69 | 575092 | 0.1016193 | 5/8/19 2:39 | 0.0119665 | 0.3583568 | 4.72051E+13 | 2.9975127 | 6.70217E+12 | 0.0134243 | 0.402013 | 2.9975127 |
| 448 | 5825.01 | 575094 | 0.1011451 | 5/8/19 2:44 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9835236 | 6.70217E+12 | 0.0173396 | 0.5192632 | 2.9835236 |
| 449 | 5825.01 | 575094 | 0.1011451 | 5/8/19 2:49 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9835236 | 6.70217E+12 | 0.0160878 | 0.481776 | 2.9835236 |
| 450 | 5827.65 | 575094 | 0.1011909 | 5/8/19 2:54 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9848758 | 6.70217E+12 | 0.0135423 | 0.4055467 | 2.9848758 |
| 451 | 5828.98 | 575094 | 0.1012114 | 5/8/19 2:59 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.985557 | 6.70217E+12 | 0.0119787 | 0.3587221 | 2.985557 |
| 452 | 5816.75 | 575095 | 0.1023933 | 5/8/19 3:04 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.200342 | 6.70217E+12 | 0.007941 | 0.2378065 | 3.200342 |
| 453 | 5816.32 | 575095 | 0.1023857 | 5/8/19 3:09 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0201187 | 6.70217E+12 | 0.011828 | 0.3542092 | 3.0201187 |
| 454 | 5822.73 | 575095 | 0.1024985 | 5/8/19 3:14 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0234471 | 6.70217E+12 | 0.0145702 | 0.4363289 | 3.0234471 |
| 455 | 5828.4 | 575095 | 0.1025983 | 5/8/19 3:19 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0263913 | 6.70217E+12 | 0.0152555 | 0.4571508 | 3.0263913 |
| 456 | 5829.18 | 575097 | 0.1038705 | 5/8/19 3:24 | 0.0120924 | 0.3621271 | 4.61938E+13 | 3.0639178 | 6.70217E+12 | 0.0169161 | 0.5065808 | 3.0639178 |
| 457 | 5837.98 | 575097 | 0.1040273 | 5/8/19 3:29 | 0.0120924 | 0.3621271 | 4.61938E+13 | 3.0685432 | 6.70217E+12 | 0.0230203 | 0.6893813 | 3.0685432 |
| 458 | 5838.98 | 575098 | 0.1040229 | 5/8/19 3:34 | 0.0120924 | 0.3621271 | 4.62037E+13 | 3.0684122 | 6.70217E+12 | 0.0845618 | 2.532344 | 3.0684122 |
| 459 | 5828.52 | 575098 | 0.1038366 | 5/8/19 3:39 | 0.0120924 | 0.3621271 | 4.62037E+13 | 3.0629154 | 6.70217E+12 | 0.0234107 | 0.7010724 | 3.0629154 |
| 460 | 5822.59 | 575099 | 0.1046272 | 5/8/19 3:44 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0862378 | 6.70217E+12 | 0.0168116 | 0.5034514 | 3.0862378 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 461 | 5803.44 | 575099 | 0.1042831 | 5/8/19 3:49 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0760874 | 6.70217E+12 | 0.0140409 | 0.4204782 | 3.0760874 |
| 462 | 5796.56 | 575099 | 0.1041595 | 5/8/19 3:54 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0724407 | 6.70217E+12 | 0.0144936 | 0.434035 | 3.0724407 |
| 463 | 5807.05 | 575101 | 0.1050426 | 5/8/19 3:59 | 0.0120924 | 0.3621271 | 4.55049E+13 | 3.0984912 | 6.70217E+12 | 0.0119057 | 0.356536 | 3.0984912 |
| 464 | 5809.78 | 575101 | 0.105092 | 5/8/19 4:04 | 0.0137229 | 0.4109551 | 4.55049E+13 | 3.0999478 | 6.70217E+12 | 0.0125622 | 0.376196 | 3.0999478 |
| 465 | 5812.68 | 575101 | 0.1051445 | 5/8/19 4:09 | 0.0137229 | 0.4109551 | 4.55049E+13 | 3.1014952 | 6.70217E+12 | 0.0142995 | 0.4282224 | 3.1014952 |
| 466 | 5815.61 | 575102 | 0.1048815 | 5/8/19 4:14 | 0.0137229 | 0.4109551 | 4.5642E+13 | 3.0937385 | 6.70217E+12 | 0.0193516 | 0.5795159 | 3.0937385 |
| 467 | 5808.55 | 575103 | 0.1046033 | 5/8/19 4:19 | 0.0137229 | 0.4109551 | 4.57078E+13 | 3.0855325 | 6.70217E+12 | 0.0200764 | 0.6012213 | 3.0855325 |
| 468 | 5820.01 | 575104 | 0.1050843 | 5/8/19 4:24 | 0.0137229 | 0.4109551 | 4.58884E+13 | 3.09972 | 6.70217E+12 | 0.0189938 | 0.568801 | 3.09972 |
| 469 | 5816.06 | 575105 | 0.1052763 | 5/8/19 4:29 | 0.0137229 | 0.4109551 | 4.54744E+13 | 3.1053836 | 6.70217E+12 | 0.0230152 | 0.6892285 | 3.1053836 |
| 470 | 5808.82 | 575106 | 0.1053792 | 5/8/19 4:34 | 0.0137229 | 0.4109551 | 4.53734E+13 | 3.1084182 | 6.70217E+12 | 0.0197229 | 0.5906351 | 3.1084182 |
| 471 | 5815.31 | 575106 | 0.1054969 | 5/8/19 4:39 | 0.0137229 | 0.4109551 | 4.53734E+13 | 3.1118911 | 6.70217E+12 | 0.0184185 | 0.5515727 | 3.1118911 |
| 472 | 5818.61 | 575108 | 0.1056718 | 5/8/19 4:44 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1170516 | 6.70217E+12 | 0.0141625 | 0.4241197 | 3.1170516 |
| 473 | 5810.51 | 575108 | 0.1055247 | 5/8/19 4:49 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1127124 | 6.70217E+12 | 0.0159072 | 0.4763676 | 3.1127124 |
| 474 | 5815.11 | 575108 | 0.1056083 | 5/8/19 4:54 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1151766 | 6.70217E+12 | 0.0160139 | 0.4795629 | 3.1151766 |
| 475 | 5808.22 | 575109 | 0.1054956 | 5/8/19 4:59 | 0.0137229 | 0.4109551 | 4.53187E+13 | 3.1118531 | 6.70217E+12 | 0.0129169 | 0.3868181 | 3.1118531 |
| 476 | 5821.06 | 575109 | 0.1057288 | 5/8/19 5:04 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1187323 | 6.70217E+12 | 0.0087613 | 0.2623717 | 3.1187323 |
| 477 | 5830.24 | 575109 | 0.1058956 | 5/8/19 5:09 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1236507 | 6.70217E+12 | 0.0125147 | 0.3747735 | 3.1236507 |
| 478 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:14 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0158514 | 0.4746966 | 3.1375074 |
| 479 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:19 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0145818 | 0.4366763 | 3.1375074 |
| 480 | 5811.28 | 575111 | 0.1058572 | 5/8/19 5:24 | 0.0172785 | 0.5174335 | 4.51877E+13 | 3.1225197 | 6.70217E+12 | 0.0159657 | 0.4781195 | 3.1225197 |
| 481 | 5814.19 | 575113 | 0.1054793 | 5/8/19 5:29 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1113735 | 6.70217E+12 | 0.0189354 | 0.5670521 | 3.1113735 |
| 482 | 5822.89 | 575113 | 0.1056372 | 5/8/19 5:34 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1160292 | 6.70217E+12 | 0.0168377 | 0.504233 | 3.1160292 |
| 483 | 5825.6 | 575113 | 0.1056863 | 5/8/19 5:39 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1174794 | 6.70217E+12 | 0.0142709 | 0.4273659 | 3.1174794 |
| 484 | 5825.47 | 575114 | 0.1057728 | 5/8/19 5:44 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1200304 | 6.70217E+12 | 0.0162737 | 0.4873431 | 3.1200304 |
| 485 | 5830.59 | 575114 | 0.1058658 | 5/8/19 5:49 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1227726 | 6.70217E+12 | 0.016296 | 0.4880109 | 3.1227726 |
| 486 | 5839.34 | 575114 | 0.1060247 | 5/8/19 5:54 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.127459 | 6.70217E+12 | 0.0078999 | 0.2365757 | 3.127459 |
| 487 | 5838.51 | 575115 | 0.1055129 | 5/8/19 5:59 | 0.0172785 | 0.5174335 | 4.55475E+13 | 3.1123637 | 6.70217E+12 | 0.015437 | 0.4717437 | 3.1123637 |
| 488 | 5829.09 | 575117 | 0.1054774 | 5/8/19 6:04 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1113164 | 6.70217E+12 | 0.015334 | 0.4592022 | 3.1113164 |
| 489 | 5826.85 | 575117 | 0.1054369 | 5/8/19 6:09 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1101208 | 6.70217E+12 | 0.0095667 | 0.2864908 | 3.1101208 |
| 490 | 5838.53 | 575118 | 0.105587 | 5/8/19 6:14 | 0.0211899 | 0.6345669 | 4.55157E+13 | 3.1145494 | 6.70217E+12 | 0.0126575 | 0.3790499 | 3.1145494 |
| 491 | 5843.74 | 575119 | 0.1054459 | 5/8/19 6:19 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1103869 | 6.70217E+12 | 0.0159603 | 0.4779578 | 3.1103869 |
| 492 | 5843.03 | 575119 | 0.1054331 | 5/8/19 6:24 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.110009 | 6.70217E+12 | 0.0169939 | 0.5089107 | 3.110009 |
| 493 | 5842.51 | 575119 | 0.1054237 | 5/8/19 6:29 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1097323 | 6.70217E+12 | 0.0176305 | 0.5279747 | 3.1097323 |
| 494 | 5859.77 | 575120 | 0.1055662 | 5/8/19 6:34 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1139353 | 6.70217E+12 | 0.0182108 | 0.5453528 | 3.1139353 |
| 495 | 5849.16 | 575120 | 0.1053751 | 5/8/19 6:39 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1082971 | 6.70217E+12 | 0.0222873 | 0.6674303 | 3.1082971 |
| 496 | 5859.91 | 575120 | 0.1055687 | 5/8/19 6:44 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1140097 | 6.70217E+12 | 0.0240313 | 0.7196573 | 3.1140097 |
| 497 | 5874.94 | 575120 | 0.1058395 | 5/8/19 6:49 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1219968 | 6.70217E+12 | 0.0247785 | 0.7420335 | 3.1219968 |
| 498 | 5849.77 | 575122 | 0.1058251 | 5/8/19 6:54 | 0.0211899 | 0.6345669 | 4.55007E+13 | 3.1215733 | 6.70217E+12 | 0.035146 | 1.0525055 | 3.1215733 |
| 499 | 5847.52 | 575123 | 0.1059851 | 5/8/19 6:59 | 0.0211899 | 0.6345669 | 4.54146E+13 | 3.1262913 | 6.70217E+12 | 0.0331317 | 0.992184 | 3.1262913 |
| 500 | 5858.74 | 575123 | 0.1061884 | 5/8/19 7:04 | 0.0245969 | 0.7365952 | 4.54146E+13 | 3.1322899 | 6.70217E+12 | 0.0225584 | 0.6755489 | 3.1322899 |
| 501 | 5868.24 | 575124 | 0.1046351 | 5/8/19 7:09 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0864695 | 6.70217E+12 | 0.0227738 | 0.6819994 | 3.0864695 |
| 502 | 5860.28 | 575124 | 0.1044931 | 5/8/19 7:14 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0822829 | 6.70217E+12 | 0.0189208 | 0.5666149 | 3.0822829 |
| 503 | 5864.03 | 575124 | 0.10456 | 5/8/19 7:19 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0842552 | 6.70217E+12 | 0.0206953 | 0.6197553 | 3.0842552 |
| 504 | 5860.24 | 575125 | 0.1049602 | 5/8/19 7:24 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0960609 | 6.70217E+12 | 0.0230157 | 0.6892435 | 3.0960609 |
| 505 | 5855.35 | 575125 | 0.1048726 | 5/8/19 7:29 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0934774 | 6.70217E+12 | 0.0225888 | 0.6764593 | 3.0934774 |
| 506 | 5861.24 | 575125 | 0.1049781 | 5/8/19 7:34 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0965892 | 6.70217E+12 | 0.0205788 | 0.6162665 | 3.0965892 |
| 507 | 5864.22 | 575125 | 0.1050315 | 5/8/19 7:39 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0981636 | 6.70217E+12 | 0.0197214 | 0.5905902 | 3.0981636 |
| 508 | 5855.4 | 575125 | 0.1048735 | 5/8/19 7:44 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0935039 | 6.70217E+12 | 0.0198359 | 0.5940191 | 3.0935039 |
| 509 | 5848.68 | 575126 | 0.102448 | 5/8/19 7:49 | 0.0245969 | 0.7365952 | 4.69919E+13 | 3.0219576 | 6.70217E+12 | 0.0296779 | 0.8887542 | 3.0219576 |
| 510 | 5843.55 | 575127 | 0.1024751 | 5/8/19 7:54 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0227572 | 6.70217E+12 | 0.0208223 | 0.6235585 | 3.0227572 |
| 511 | 5851.77 | 575127 | 0.1026193 | 5/8/19 7:59 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0270092 | 6.70217E+12 | 0.0230156 | 0.6892405 | 3.0270092 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 512 | 5849.49 | 575127 | 0.1025793 | 5/8/19 8:04 | 0.0242095 | 0.7249938 | 4.69382E+13 | 3.0258298 | 6.70217E+12 | 0.0232039 | 0.6948795 | 3.0258298 |
| 513 | 5849.48 | 575129 | 0.1024537 | 5/8/19 8:09 | 0.0242095 | 0.7249938 | 4.69957E+13 | 3.0221242 | 6.70217E+12 | 0.0199092 | 0.5962142 | 3.0221242 |
| 514 | 5848.2 | 575130 | 0.1023337 | 5/8/19 8:14 | 0.0242095 | 0.7249938 | 4.70405E+13 | 3.0185855 | 6.70217E+12 | 0.0193885 | 0.5806209 | 3.0185855 |
| 515 | 5833.78 | 575131 | 0.1018159 | 5/8/19 8:19 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0033105 | 6.70217E+12 | 0.0228642 | 0.6847066 | 3.0033105 |
| 516 | 5845.68 | 575131 | 0.1020236 | 5/8/19 8:24 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0094368 | 6.70217E+12 | 0.0197323 | 0.5909166 | 3.0094368 |
| 517 | 5850.11 | 575133 | 0.101054 | 5/8/19 8:29 | 0.0242095 | 0.7249938 | 4.76518E+13 | 2.9808362 | 6.70217E+12 | 0.0210194 | 0.629461 | 2.9808362 |
| 518 | 5849.94 | 575134 | 0.101143 | 5/8/19 8:34 | 0.0242095 | 0.7249938 | 4.76084E+13 | 2.9834634 | 6.70217E+12 | 0.0253845 | 0.7601812 | 2.9834634 |
| 519 | 5844.18 | 575135 | 0.1003625 | 5/8/19 8:39 | 0.0242095 | 0.7249938 | 4.79315E+13 | 2.9604385 | 6.70217E+12 | 0.0187378 | 0.5611347 | 2.9604385 |
| 520 | 5844.99 | 575136 | 0.1007176 | 5/8/19 8:45 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9709144 | 6.70217E+12 | 0.0201853 | 0.6044825 | 2.9709144 |
| 521 | 5856.45 | 575136 | 0.1009151 | 5/8/19 8:50 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9767393 | 6.70217E+12 | 0.0212258 | 0.635642 | 2.9767393 |
| 522 | 5861.07 | 575136 | 0.1009947 | 5/8/19 8:55 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9790876 | 6.70217E+12 | 0.0203371 | 0.6090284 | 2.9790876 |
| 523 | 5859.02 | 575136 | 0.1009594 | 5/8/19 9:00 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9780456 | 6.70217E+12 | 0.0193291 | 0.5788421 | 2.9780456 |
| 524 | 5865.61 | 575136 | 0.1010729 | 5/8/19 9:05 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9813952 | 6.70217E+12 | 0.0272511 | 0.8160796 | 2.9813952 |
| 525 | 5854.26 | 575136 | 0.1008773 | 5/8/19 9:10 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9758262 | 6.70217E+12 | 0.0236817 | 0.709188 | 2.9758262 |
| 526 | 5831.3 | 575137 | 0.1018101 | 5/8/19 9:15 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0031404 | 6.70217E+12 | 0.0214968 | 0.64376289 | 6.4376289 |
| 527 | 5839.16 | 575137 | 0.1019473 | 5/8/19 9:20 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0071883 | 6.70217E+12 | 0.0214921 | 0.64364101 | 6.4364101 |
| 528 | 5843.2 | 575137 | 0.1020179 | 5/8/19 9:25 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0092689 | 6.70217E+12 | 0.0275293 | 0.8244108 | 3.0092689 |
| 529 | 5841.15 | 575137 | 0.1019821 | 5/8/19 9:30 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0082132 | 6.70217E+12 | 0.0429576 | 1.2864369 | 3.0082132 |
| 530 | 5849.05 | 575139 | 0.1011946 | 5/8/19 9:35 | 0.0244939 | 0.7335107 | 4.7577E+13 | 2.9849829 | 6.70217E+12 | 0.0232529 | 0.6963468 | 2.9849829 |
| 531 | 5857.36 | 575140 | 0.0999202 | 5/8/19 9:40 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.947394 | 6.70217E+12 | 0.0229391 | 0.6869496 | 2.947394 |
| 532 | 5857.91 | 575140 | 0.0999296 | 5/8/19 9:45 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9476708 | 6.70217E+12 | 0.0235124 | 0.704118 | 2.9476708 |
| 533 | 5864.03 | 575140 | 0.100034 | 5/8/19 9:50 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9507504 | 6.70217E+12 | 0.0259313 | 0.776556 | 2.9507504 |
| 534 | 5868.53 | 575142 | 0.0972217 | 5/8/19 9:55 | 0.0244939 | 0.7335107 | 4.96861E+13 | 2.8677931 | 6.70217E+12 | 0.0202099 | 0.6052191 | 2.8677931 |
| 535 | 5857.64 | 575143 | 0.0964425 | 5/8/19 10:00 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8448083 | 6.70217E+12 | 0.018816 | 0.5634765 | 2.8448083 |
| 536 | 5866.7 | 575143 | 0.0965916 | 5/8/19 10:05 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8492083 | 6.70217E+12 | 0.0166105 | 0.4974291 | 2.8492083 |
| 537 | 5863.82 | 575143 | 0.0965442 | 5/8/19 10:10 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8478096 | 6.70217E+12 | 0.0189675 | 0.5680134 | 2.8478096 |
| 538 | 5866.01 | 575143 | 0.0965803 | 5/8/19 10:15 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8488732 | 6.70217E+12 | 0.0207265 | 0.6206896 | 2.8488732 |
| 539 | 5864.99 | 575144 | 0.0934511 | 5/8/19 10:20 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7565705 | 6.70217E+12 | 0.0230154 | 0.6892345 | 2.7565705 |
| 540 | 5879.4 | 575144 | 0.0936807 | 5/8/19 10:25 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7633433 | 6.70217E+12 | 0.022665 | 0.6787412 | 2.7633433 |
| 541 | 5893.62 | 575144 | 0.0939073 | 5/8/19 10:30 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7700267 | 6.70217E+12 | 0.026083 | 0.7810989 | 2.7700267 |
| 542 | 5896.01 | 575144 | 0.0939454 | 5/8/19 10:35 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.77115 | 6.70217E+12 | 0.0230839 | 0.6912859 | 2.77115 |
| 543 | 5888.01 | 575145 | 0.0946022 | 5/8/19 10:40 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.790525 | 6.70217E+12 | 0.0287548 | 0.8611104 | 2.790525 |
| 544 | 5881.26 | 575145 | 0.0944937 | 5/8/19 10:45 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.787326 | 6.70217E+12 | 0.0290496 | 0.8699387 | 2.787326 |
| 545 | 5890.78 | 575145 | 0.0946467 | 5/8/19 10:50 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.7918378 | 6.70217E+12 | 0.031648 | 0.9477521 | 2.7918378 |
| 546 | 5902.32 | 575145 | 0.0948321 | 5/8/19 10:55 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.797307 | 6.70217E+12 | 0.0386126 | 1.1563187 | 2.797307 |
| 547 | 5892.56 | 575146 | 0.0957691 | 5/8/19 11:00 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8249464 | 6.70217E+12 | 0.1850845 | 5.5426638 | 5.5426638 |
| 548 | 5892.8 | 575146 | 0.095773 | 5/8/19 11:06 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8250615 | 6.70217E+12 | 0.1223436 | 3.663783 | 3.663783 |
| 549 | 5886.97 | 575146 | 0.0956783 | 5/8/19 11:11 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8222665 | 6.70217E+12 | 0.0289788 | 0.8678185 | 2.8222665 |
| 550 | 5886.09 | 575147 | 0.095016 | 5/8/19 11:16 | 0.0256602 | 0.7684375 | 5.09916E+13 | 2.8027303 | 6.70217E+12 | 0.0293671 | 0.8794468 | 2.8027303 |
| 551 | 5892.15 | 575147 | 0.0951138 | 5/8/19 11:21 | 0.0256602 | 0.7684375 | 5.09916E+13 | 2.8056159 | 6.70217E+12 | 0.0222423 | 0.6660827 | 2.8056159 |
| 552 | 5876.44 | 575148 | 0.0951515 | 5/8/19 11:26 | 0.0256602 | 0.7684375 | 5.08355E+13 | 2.8067268 | 6.70217E+12 | 0.0207227 | 0.6207258 | 2.8067268 |
| 553 | 5884.06 | 575148 | 0.0955244 | 5/8/19 11:31 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.8177282 | 6.70217E+12 | 0.0191584 | 0.5737302 | 2.8177282 |
| 554 | 5888.27 | 575149 | 0.0955928 | 5/8/19 11:36 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.8197442 | 6.70217E+12 | 0.0213724 | 0.6400321 | 2.8197442 |
| 555 | 5886.01 | 575149 | 0.0955561 | 5/8/19 11:41 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.818662 | 6.70217E+12 | 0.0222172 | 0.6653311 | 2.818662 |
| 556 | 5884.57 | 575150 | 0.0935906 | 5/8/19 11:46 | 0.0256602 | 0.7684375 | 5.17548E+13 | 2.7606856 | 6.70217E+12 | 0.0230647 | 0.6907109 | 2.7606856 |
| 557 | 5889.82 | 575150 | 0.0936741 | 5/8/19 11:51 | 0.0256602 | 0.7684375 | 5.17548E+13 | 2.7631486 | 6.70217E+12 | 0.0228225 | 0.6834578 | 2.7631486 |
| 558 | 5888.19 | 575151 | 0.0945307 | 5/8/19 11:56 | 0.0256602 | 0.7684375 | 5.12716E+13 | 2.7884168 | 6.70217E+12 | 0.0233477 | 0.6991858 | 2.7884168 |
| 559 | 5872.61 | 575151 | 0.0942806 | 5/8/19 12:01 | 0.026371 | 0.7897235 | 5.12716E+13 | 2.7810387 | 6.70217E+12 | 0.0224703 | 0.6729106 | 2.7810387 |
| 560 | 5867.29 | 575152 | 0.0946705 | 5/8/19 12:06 | 0.026371 | 0.7897235 | 5.10142E+13 | 2.7925413 | 6.70217E+12 | 0.0217427 | 0.6511214 | 2.7925413 |
| 561 | 5863.69 | 575152 | 0.0946125 | 5/8/19 12:11 | 0.026371 | 0.7897235 | 5.10142E+13 | 2.7908278 | 6.70217E+12 | 0.0206502 | 0.6184047 | 2.7908278 |
| 562 | 5866.61 | 575153 | 0.0947421 | 5/8/19 12:16 | 0.026371 | 0.7897235 | 5.09698E+13 | 2.7946505 | 6.70217E+12 | 0.0211696 | 0.633959 | 2.7946505 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 563 | 5868.73 | 575154 | 0.0943442 | 5/8/19 12:21 | 0.026371 | 0.7897235 | 5.12032E+13 | 2.7829139 | 6.70217E+12 | 0.0227271 | 0.6806009 | 2.7829139 |
| 564 | 5877.65 | 575154 | 0.0944876 | 5/8/19 12:26 | 0.026371 | 0.7897235 | 5.12032E+13 | 2.7871437 | 6.70217E+12 | 0.0262613 | 0.7864384 | 2.7871437 |
| 565 | 5886.52 | 575156 | 0.0934827 | 5/8/19 12:31 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7575042 | 6.70217E+12 | 0.0246938 | 0.739497 | 2.7575042 |
| 566 | 5883.25 | 575156 | 0.0934308 | 5/8/19 12:36 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7559724 | 6.70217E+12 | 0.0239477 | 0.7171538 | 2.7559724 |
| 567 | 5880.8 | 575156 | 0.0933919 | 5/8/19 12:41 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7548247 | 6.70217E+12 | 0.0215346 | 0.6448895 | 2.7548247 |
| 568 | 5886.84 | 575157 | 0.0931778 | 5/8/19 12:46 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7485095 | 6.70217E+12 | 0.0215175 | 0.6443774 | 2.7485095 |
| 569 | 5887.77 | 575157 | 0.0931925 | 5/8/19 12:51 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7489437 | 6.70217E+12 | 0.0210953 | 0.6317339 | 2.7489437 |
| 570 | 5886.14 | 575159 | 0.0936745 | 5/8/19 12:56 | 0.026371 | 0.7897235 | 5.17223E+13 | 2.7631598 | 6.70217E+12 | 0.0221968 | 0.6647202 | 2.7631598 |
| 571 | 5880.23 | 575159 | 0.0935804 | 5/8/19 13:01 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7603855 | 6.70217E+12 | 0.0220558 | 0.6604977 | 2.7603855 |
| 572 | 5884.79 | 575159 | 0.093653 | 5/8/19 13:06 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7625261 | 6.70217E+12 | 0.0232481 | 0.6962031 | 2.7625261 |
| 573 | 5887.12 | 575159 | 0.0936901 | 5/8/19 13:11 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7636199 | 6.70217E+12 | 0.0228614 | 0.6846227 | 2.7636199 |
| 574 | 5882.83 | 575159 | 0.0936218 | 5/8/19 13:16 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.761606 | 6.70217E+12 | 0.0286842 | 0.8589962 | 2.761606 |
| 575 | 5887.05 | 575160 | 0.095298 | 5/8/19 13:21 | 0.0224056 | 0.670973 | 5.0849E+13 | 2.8110496 | 6.70217E+12 | 0.0210217 | 0.6295298 | 2.8110496 |
| 576 | 5885.01 | 575161 | 0.0954767 | 5/8/19 13:26 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8163217 | 6.70217E+12 | 0.0209618 | 0.6277736 | 2.8163217 |
| 577 | 5877.03 | 575161 | 0.0953473 | 5/8/19 13:31 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8125028 | 6.70217E+12 | 0.019652 | 0.5885119 | 2.8125028 |
| 578 | 5864.5 | 575163 | 0.0928787 | 5/8/19 13:36 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7396868 | 6.70217E+12 | 0.0197032 | 0.5900452 | 2.7396868 |
| 579 | 5878.37 | 575163 | 0.0930984 | 5/8/19 13:41 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7461664 | 6.70217E+12 | 0.0229336 | 0.6867849 | 2.7461664 |
| 580 | 5884.42 | 575163 | 0.0931942 | 5/8/19 13:46 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7489927 | 6.70217E+12 | 0.027902 | 0.8355719 | 2.7489927 |
| 581 | 5882.28 | 575163 | 0.0931603 | 5/8/19 13:51 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.747993 | 6.70217E+12 | 0.0286405 | 0.8576875 | 2.747993 |
| 582 | 5884.83 | 575163 | 0.0932007 | 5/8/19 13:56 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7491843 | 6.70217E+12 | 0.0262751 | 0.7868517 | 2.7491843 |
| 583 | 5884.52 | 575164 | 0.0946934 | 5/8/19 14:01 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.793214 | 6.70217E+12 | 0.027166 | 0.8135311 | 2.793214 |
| 584 | 5879.67 | 575164 | 0.0946153 | 5/8/19 14:06 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7909119 | 6.70217E+12 | 0.0243166 | 0.7282011 | 2.7909119 |
| 585 | 5877.49 | 575164 | 0.0945802 | 5/8/19 14:11 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7898771 | 6.70217E+12 | 0.0208701 | 0.6249899 | 2.7898771 |
| 586 | 5887.28 | 575166 | 0.0950829 | 5/8/19 14:16 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8047039 | 6.70217E+12 | 0.0218292 | 0.6537118 | 2.8047039 |
| 587 | 5884.05 | 575166 | 0.0950307 | 5/8/19 14:21 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8031651 | 6.70217E+12 | 0.0217633 | 0.6517383 | 2.8031651 |
| 588 | 5885.12 | 575166 | 0.095048 | 5/8/19 14:26 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8036749 | 6.70217E+12 | 0.0217781 | 0.6521815 | 2.8036749 |
| 589 | 5902.91 | 575167 | 0.0961455 | 5/8/19 14:31 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.836049 | 6.70217E+12 | 0.021451 | 0.6423859 | 2.836049 |
| 590 | 5902.72 | 575167 | 0.0961424 | 5/8/19 14:36 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8359577 | 6.70217E+12 | 0.1801174 | 5.3939157 | 5.3939157 |
| 591 | 5906.61 | 575167 | 0.0962058 | 5/8/19 14:41 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8378267 | 6.70217E+12 | 0.0426523 | 1.2777294 | 2.8378267 |
| 592 | 5912.28 | 575167 | 0.0962981 | 5/8/19 14:46 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8405508 | 6.70217E+12 | 0.1999116 | 5.986686 | 5.986686 |
| 593 | 5908.65 | 575170 | 0.095031 | 5/8/19 14:51 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.8031727 | 6.70217E+12 | 0.2670565 | 7.997452 | 7.997452 |
| 594 | 5900.02 | 575170 | 0.0948922 | 5/8/19 14:56 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.7990785 | 6.70217E+12 | 0.0299601 | 0.8927051 | 2.7990785 |
| 595 | 5884.23 | 575171 | 0.0950701 | 5/8/19 15:01 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8043263 | 6.70217E+12 | 0.0297971 | 0.8923238 | 2.8043263 |
| 596 | 5890.02 | 575171 | 0.0951636 | 5/8/19 15:06 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8070857 | 6.70217E+12 | 0.0254303 | 0.7615527 | 2.8070857 |
| 597 | 5890.65 | 575171 | 0.0951738 | 5/8/19 15:11 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8073859 | 6.70217E+12 | 0.0264722 | 0.7927541 | 2.8073859 |
| 598 | 5868.34 | 575171 | 0.0948133 | 5/8/19 15:16 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.7967533 | 6.70217E+12 | 0.0232906 | 0.6974758 | 2.7967533 |
| 599 | 5883.01 | 575172 | 0.0962041 | 5/8/19 15:21 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.837777 | 6.70217E+12 | 0.0222339 | 0.6655317 | 2.837777 |
| 600 | 5877.22 | 575172 | 0.0961094 | 5/8/19 15:26 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.8349841 | 6.70217E+12 | 0.021497 | 0.6437635 | 2.8349841 |
| 601 | 5882.35 | 575173 | 0.0955836 | 5/8/19 15:31 | 0.0170556 | 0.5107584 | 5.06566E+13 | 2.8194728 | 6.70217E+12 | 0.0233908 | 0.7004765 | 2.8194728 |
| 602 | 5895.23 | 575174 | 0.0960485 | 5/8/19 15:36 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8331879 | 6.70217E+12 | 0.0260191 | 0.7791853 | 2.8331879 |
| 603 | 5891.02 | 575174 | 0.0959799 | 5/8/19 15:41 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.83311646 | 6.70217E+12 | 0.0204508 | 0.6124333 | 2.8311646 |
| 604 | 5895.3 | 575174 | 0.0960497 | 5/8/19 15:46 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8332215 | 6.70217E+12 | 0.0203869 | 0.6105197 | 2.8332215 |
| 605 | 5898.69 | 575174 | 0.0961049 | 5/8/19 15:51 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8348507 | 6.70217E+12 | 0.0210614 | 0.6307187 | 2.8348507 |
| 606 | 5898.34 | 575175 | 0.0970802 | 5/8/19 15:56 | 0.0170556 | 0.5107584 | 5.00112E+13 | 2.863621 | 6.70217E+12 | 0.0209194 | 0.6264663 | 2.863621 |
| 607 | 5900.14 | 575176 | 0.0971661 | 5/8/19 16:01 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8661537 | 6.70217E+12 | 0.0209977 | 0.6288111 | 2.8661537 |
| 608 | 5891.31 | 575176 | 0.0970207 | 5/8/19 16:06 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8618643 | 6.70217E+12 | 0.0203367 | 0.6090164 | 2.8618643 |
| 609 | 5893.65 | 575176 | 0.0970592 | 5/8/19 16:11 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.863001 | 6.70217E+12 | 0.0213506 | 0.6393793 | 2.863001 |
| 610 | 5892.53 | 575177 | 0.0969298 | 5/8/19 16:16 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8591849 | 6.70217E+12 | 0.0261533 | 0.7832042 | 2.8591849 |
| 611 | 5894.16 | 575177 | 0.0969567 | 5/8/19 16:21 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8599758 | 6.70217E+12 | 0.0258626 | 0.7744987 | 2.8599758 |
| 612 | 5895.84 | 575178 | 0.097646 | 5/8/19 16:26 | 0.0174326 | 0.5220483 | 4.97004E+13 | 2.88031 | 6.70217E+12 | 0.0215949 | 0.6466953 | 2.88031 |
| 613 | 5896.89 | 575179 | 0.0980892 | 5/8/19 16:31 | 0.0174326 | 0.5220483 | 4.94846E+13 | 2.8933819 | 6.70217E+12 | 0.0198411 | 0.5941748 | 2.8933819 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 614 | 5902.19 | 575180 | 0.0983841 | 5/8/19 16:36 | 0.0174326 | 0.5220483 | 4.93807E+13 | 2.9020809 | 6.70217E+12 | 0.0207134 | 0.6202973 | 2.9020809 |
| 615 | 5905.9 | 575181 | 0.097534 | 5/8/19 16:41 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8770052 | 6.70217E+12 | 0.0223016 | 0.6678586 | 2.8770052 |
| 616 | 5906.84 | 575181 | 0.0975495 | 5/8/19 16:46 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8774631 | 6.70217E+12 | 0.0254538 | 0.7622565 | 2.8774631 |
| 617 | 5906.42 | 575181 | 0.0975095 | 5/8/19 16:51 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8762842 | 6.70217E+12 | 0.025079 | 0.7510325 | 2.8762842 |
| 618 | 5903.02 | 575181 | 0.0974864 | 5/8/19 16:56 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8756022 | 6.70217E+12 | 0.0246071 | 0.7369006 | 2.8756022 |
| 619 | 5894.63 | 575182 | 0.0989154 | 5/8/19 17:01 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9177544 | 6.70217E+12 | 0.0226389 | 0.6779596 | 2.9177544 |
| 620 | 5898.06 | 575182 | 0.098973 | 5/8/19 17:06 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9194522 | 6.70217E+12 | 0.0256642 | 0.7685572 | 2.9194522 |
| 621 | 5891.22 | 575182 | 0.0988582 | 5/8/19 17:11 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9160665 | 6.70217E+12 | 0.0384273 | 1.1507695 | 2.9160665 |
| 622 | 5888.49 | 575182 | 0.0988124 | 5/8/19 17:16 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9147151 | 6.70217E+12 | 0.0364449 | 1.0914033 | 2.9147151 |
| 623 | 5895.57 | 575183 | 0.0996828 | 5/8/19 17:21 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9403898 | 6.70217E+12 | 0.0191003 | 0.5719903 | 2.9403898 |
| 624 | 5896.91 | 575183 | 0.0997054 | 5/8/19 17:26 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9410582 | 6.70217E+12 | 0.0230176 | 0.6893004 | 2.9410582 |
| 625 | 5918.72 | 575183 | 0.1000742 | 5/8/19 17:31 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9519358 | 6.70217E+12 | 0.0030289 | 0.0907055 | 2.9519358 |
| 626 | 5926.18 | 575183 | 0.1002003 | 5/8/19 17:36 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9556564 | 6.70217E+12 | 0.0439309 | 1.315584 | 2.9556564 |
| 627 | 5934.97 | 575183 | 0.100349 | 5/8/19 17:41 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9600404 | 6.70217E+12 | 0.0408583 | 1.2235699 | 2.9600404 |
| 628 | 5944.99 | 575185 | 0.100551 | 5/8/19 17:46 | 0.0174032 | 0.5211678 | 4.86669E+13 | 2.9659989 | 6.70217E+12 | 0.0170991 | 0.512061 | 2.9659989 |
| 629 | 5940.01 | 575185 | 0.1004667 | 5/8/19 17:51 | 0.0174032 | 0.5211678 | 4.86669E+13 | 2.9635144 | 6.70217E+12 | 0.0183967 | 0.5509198 | 2.9635144 |
| 630 | 5931.52 | 575186 | 0.1008871 | 5/8/19 17:56 | 0.0174032 | 0.5211678 | 4.83948E+13 | 2.9759139 | 6.70217E+12 | 0.0163528 | 0.4897119 | 2.9759139 |
| 631 | 5938.6 | 575188 | 0.0986457 | 5/8/19 18:01 | 0.0165475 | 0.4955425 | 4.95535E+13 | 2.9097985 | 6.70217E+12 | 0.0185884 | 0.5566606 | 2.9097985 |
| 632 | 5931.02 | 575189 | 0.0980181 | 5/8/19 18:06 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8912849 | 6.70217E+12 | 0.0173413 | 0.5193141 | 2.8912849 |
| 633 | 5928.19 | 575189 | 0.0979713 | 5/8/19 18:12 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8899053 | 6.70217E+12 | 0.0187899 | 0.5626949 | 2.8899053 |
| 634 | 5932.23 | 575189 | 0.0980381 | 5/8/19 18:17 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8918748 | 6.70217E+12 | 0.0180684 | 0.5410884 | 2.8918748 |
| 635 | 5931.78 | 575189 | 0.0980306 | 5/8/19 18:22 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8916554 | 6.70217E+12 | 0.0164812 | 0.493557 | 2.8916554 |
| 636 | 5964.15 | 575189 | 0.0983656 | 5/8/19 18:27 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.9074353 | 6.70217E+12 | 0.0180238 | 0.5397527 | 2.9074353 |
| 637 | 5899.89 | 575189 | 0.0975036 | 5/8/19 18:32 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8761095 | 6.70217E+12 | 0.0168118 | 0.5034574 | 2.8761095 |
| 638 | 5931.45 | 575190 | 0.1008336 | 5/8/19 18:37 | 0.0165475 | 0.4955425 | 4.84199E+13 | 2.9743362 | 6.70217E+12 | 0.0122315 | 0.3662927 | 2.9743362 |
| 639 | 5929.97 | 575190 | 0.1008085 | 5/8/19 18:42 | 0.0165475 | 0.4955425 | 4.84199E+13 | 2.973594 | 6.70217E+12 | 0.0162317 | 0.4860853 | 2.973594 |
| 640 | 5923.2 | 575191 | 0.0994527 | 5/8/19 18:47 | 0.0165475 | 0.4955425 | 4.90239E+13 | 2.9336031 | 6.70217E+12 | 0.0090855 | 0.2720804 | 2.9336031 |
| 641 | 5934.99 | 575192 | 0.0992547 | 5/8/19 18:52 | 0.0165475 | 0.492195E+13 | 4.92195E+13 | 2.9277617 | 6.70217E+12 | 0.0122121 | 0.3657117 | 2.9277617 |
| 642 | 5940.66 | 575194 | 0.0989022 | 5/8/19 18:57 | 0.0165475 | 0.4955425 | 4.94421E+13 | 2.9173636 | 6.70217E+12 | 0.0091815 | 0.2749553 | 2.9173636 |
| 643 | 5948.18 | 575194 | 0.0990274 | 5/8/19 19:02 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9210566 | 6.70217E+12 | 0.0137605 | 0.4120811 | 2.9210566 |
| 644 | 5964.98 | 575194 | 0.0993071 | 5/8/19 19:07 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9293068 | 6.70217E+12 | 0.0152734 | 0.4573874 | 2.9293068 |
| 645 | 5960.1 | 575194 | 0.0992258 | 5/8/19 19:12 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9269103 | 6.70217E+12 | 0.0109359 | 0.3274938 | 2.9269103 |
| 646 | 5946.01 | 575194 | 0.0989912 | 5/8/19 19:17 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9199909 | 6.70217E+12 | 0.0150092 | 0.4494755 | 2.9199909 |
| 647 | 5937.16 | 575194 | 0.0988439 | 5/8/19 19:22 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9156448 | 6.70217E+12 | 0.0154969 | 0.4640805 | 2.9156448 |
| 648 | 5955.08 | 575194 | 0.0991422 | 5/8/19 19:27 | 0.0158704 | 0.4752656 | 4.94421E+13 | 2.9244451 | 6.70217E+12 | 0.0152611 | 0.4570191 | 2.9244451 |
| 649 | 5957.98 | 575195 | 0.1010248 | 5/8/19 19:32 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9799976 | 6.70217E+12 | 0.0228461 | 0.6841645 | 2.9799976 |
| 650 | 5962.91 | 575195 | 0.1011084 | 5/8/19 19:37 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9824418 | 6.70217E+12 | 0.0165428 | 0.4954017 | 2.9824418 |
| 651 | 5956.59 | 575195 | 0.1010012 | 5/8/19 19:42 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9792807 | 6.70217E+12 | 0.0163774 | 0.4904485 | 2.9792807 |
| 652 | 5957.7 | 575195 | 0.1010201 | 5/8/19 19:47 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9798359 | 6.70217E+12 | 0.0147872 | 0.4428273 | 2.9798359 |
| 653 | 5969.98 | 575195 | 0.1012283 | 5/8/19 19:52 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9859578 | 6.70217E+12 | 0.0161979 | 0.4850731 | 2.9859578 |
| 654 | 5987.65 | 575195 | 0.1015279 | 5/8/19 19:57 | 0.0158704 | 0.4752656 | 4.85444E+13 | 2.9948159 | 6.70217E+12 | 0.0140256 | 0.42002 | 2.9948159 |
| 655 | 6036.6 | 575195 | 0.1023575 | 5/8/19 20:02 | 0.013261 | 0.3971227 | 4.85444E+13 | 3.019299 | 6.70217E+12 | 0.0154454 | 0.4625382 | 3.019299 |
| 656 | 6037.49 | 575196 | 0.1050403 | 5/8/19 20:07 | 0.013261 | 0.3971227 | 4.73117E+13 | 3.0984226 | 6.70217E+12 | 0.0157078 | 0.4703963 | 3.0984226 |
| 657 | 6092.47 | 575196 | 0.1059968 | 5/8/19 20:12 | 0.013261 | 0.3971227 | 4.73117E+13 | 3.1266382 | 6.70217E+12 | 0.0215321 | 0.6448146 | 3.1266382 |
| 658 | 6052.38 | 575196 | 0.1052994 | 5/8/19 20:17 | 0.013261 | 0.3971227 | 4.73117E+13 | 3.1060641 | 6.70217E+12 | 0.018557 | 0.5557203 | 3.1060641 |
| 659 | 6053.32 | 575199 | 0.1035905 | 5/8/19 20:22 | 0.013261 | 0.3971227 | 4.80997E+13 | 3.0556586 | 6.70217E+12 | 0.0163585 | 0.4898825 | 3.0556586 |
| 660 | 6041.03 | 575200 | 0.1032464 | 5/8/19 20:27 | 0.013261 | 0.3971227 | 4.8162E+13 | 3.0455058 | 6.70217E+12 | 0.0188459 | 0.5643719 | 3.0455058 |
| 661 | 6030.66 | 575202 | 0.1032473 | 5/8/19 20:32 | 0.013261 | 0.3971227 | 4.80789E+13 | 3.0455341 | 6.70217E+12 | 0.0134602 | 0.4030881 | 3.0455341 |
| 662 | 6043.34 | 575204 | 0.1032455 | 5/8/19 20:37 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.0454809 | 6.70217E+12 | 0.0164743 | 0.4933504 | 3.0454809 |
| 663 | 6042.19 | 575204 | 0.1032259 | 5/8/19 20:42 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.0449014 | 6.70217E+12 | 0.0147002 | 0.440222 | 3.0449014 |
| 664 | 6049.96 | 575204 | 0.1033586 | 5/8/19 20:47 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.048817 | 6.70217E+12 | 0.0148678 | 0.4452411 | 3.048817 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 665 | 6051.76 | 575205 | 0.1040715 | 5/8/19 20:52 | 0.013261 | 0.3971227 | 4.7865E+13 | 3.0698443 | 6.70217E+12 | 0.0130545 | 0.3909388 | 3.0698443 |
| 666 | 6054.77 | 575206 | 0.1045618 | 5/8/19 20:57 | 0.013261 | 0.3971227 | 4.76643E+13 | 3.084309 | 6.70217E+12 | 0.0122348 | 0.3663915 | 3.084309 |
| 667 | 6045.31 | 575206 | 0.1043985 | 5/8/19 21:02 | 0.0057558 | 0.172367 | 4.76643E+13 | 3.0794901 | 6.70217E+12 | 0.0113115 | 0.3387417 | 3.0794901 |
| 668 | 6042.99 | 575207 | 0.1043195 | 5/8/19 21:07 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0771614 | 6.70217E+12 | 0.0064092 | 0.1919342 | 3.0771614 |
| 669 | 6038.47 | 575207 | 0.1042415 | 5/8/19 21:12 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0748598 | 6.70217E+12 | 0.0050076 | 0.1499609 | 3.0748598 |
| 670 | 6046.62 | 575207 | 0.1043822 | 5/8/19 21:17 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0790099 | 6.70217E+12 | -0.0026668 | -0.0798618 | 3.0790099 |
| 671 | 6044.8 | 575207 | 0.1043508 | 5/8/19 21:22 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0780831 | 6.70217E+12 | 0.0105849 | 0.3169825 | 3.0780831 |
| 672 | 6048.33 | 575207 | 0.1044117 | 5/8/19 21:27 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0798806 | 6.70217E+12 | 0.0086089 | 0.2578079 | 3.0798806 |
| 673 | 6052.87 | 575208 | 0.1057954 | 5/8/19 21:32 | 0.0057558 | 0.172367 | 4.70937E+13 | 3.1206959 | 6.70217E+12 | 0.0018 | 0.053904 | 3.1206959 |
| 674 | 6056.61 | 575210 | 0.1055202 | 5/8/19 21:37 | 0.0057558 | 0.172367 | 4.72457E+13 | 3.1125773 | 6.70217E+12 | -0.0021614 | -0.0647267 | 3.1125773 |
| 675 | 6059.99 | 575212 | 0.0995054 | 5/8/19 21:42 | 0.0057558 | 0.172367 | 5.01295E+13 | 2.9351584 | 6.70217E+12 | -0.0034416 | -0.1030644 | 2.9351584 |
| 676 | 6049.69 | 575213 | 0.0988159 | 5/8/19 21:47 | 0.0057558 | 0.172367 | 5.03935E+13 | 2.9148188 | 6.70217E+12 | -0.0015146 | -0.0453572 | 2.9148188 |
| 677 | 6056.42 | 575214 | 0.0996142 | 5/8/19 21:52 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9383674 | 6.70217E+12 | 0.0023178 | -0.0694104 | 2.9383674 |
| 678 | 6033.23 | 575215 | 0.0994308 | 5/8/19 21:57 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9329578 | 6.70217E+12 | 0.0029429 | 0.08813 | 2.9329578 |
| 679 | 6041.19 | 575214 | 0.0993637 | 5/8/19 22:02 | -0.0039885 | -0.1194423 | 5.00453E+13 | 2.9309783 | 6.70217E+12 | 0.0028846 | 0.0863842 | 2.9309783 |
| 680 | 6033.23 | 575215 | 0.0986577 | 5/8/19 22:07 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9101535 | 6.70217E+12 | -0.0021717 | -0.0650352 | 2.9101535 |
| 681 | 6034.99 | 575215 | 0.0986865 | 5/8/19 22:12 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9110025 | 6.70217E+12 | 0.0094236 | 0.2822054 | 2.9110025 |
| 682 | 6042.83 | 575216 | 0.0988187 | 5/8/19 22:17 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9147841 | 6.70217E+12 | -0.0117128 | -0.3507593 | 2.9147841 |
| 683 | 6033.48 | 575216 | 0.0981874 | 5/8/19 22:22 | -0.0039885 | -0.1194423 | 5.05802E+13 | 2.8962791 | 6.70217E+12 | -0.0071632 | -0.214514 | 2.8962791 |
| 684 | 6028.01 | 575217 | 0.0985494 | 5/8/19 22:27 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9069577 | 6.70217E+12 | -0.0043047 | -0.1289114 | 2.9069577 |
| 685 | 6027.43 | 575217 | 0.0985399 | 5/8/19 22:32 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.906678 | 6.70217E+12 | -0.0026014 | -0.0779033 | 2.906678 |
| 686 | 6029.94 | 575217 | 0.098581 | 5/8/19 22:37 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9078884 | 6.70217E+12 | -0.0017683 | -0.0529547 | 2.9078884 |
| 687 | 6039.16 | 575219 | 0.0983331 | 5/8/19 22:42 | -0.0039885 | -0.1194423 | 5.05528E+13 | 2.9005763 | 6.70217E+12 | -0.0018002 | -0.05391 | 2.9005763 |
| 688 | 6039.06 | 575221 | 0.0975716 | 5/8/19 22:47 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.8781157 | 6.70217E+12 | 0.0035525 | 0.1063855 | 2.8781157 |
| 689 | 6035.97 | 575221 | 0.0975217 | 5/8/19 22:52 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.876643 | 6.70217E+12 | -0.0028608 | -0.0856714 | 2.876643 |
| 690 | 6041.91 | 575222 | 0.0971742 | 5/8/19 22:57 | -0.0039885 | -0.1194423 | 5.1179E+13 | 2.8663937 | 6.70217E+12 | -0.0044334 | -0.1327656 | 2.8663937 |
| 691 | 6066.64 | 575224 | 0.1014592 | 5/9/19 0:02 | -0.0060127 | -0.1800603 | 4.92181E+13 | 2.9927906 | 6.70217E+12 | -0.0145142 | -0.4346519 | 2.9927906 |
| 692 | 6072.36 | 575225 | 0.1021048 | 5/9/19 0:07 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0118316 | 6.70217E+12 | -0.0130235 | -0.3900104 | 3.0118316 |
| 693 | 6068.07 | 575225 | 0.1020326 | 5/9/19 0:12 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0097038 | 6.70217E+12 | -0.0286682 | -0.858517 | 3.0097038 |
| 694 | 6076.08 | 575225 | 0.1021673 | 5/9/19 0:17 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0136767 | 6.70217E+12 | -0.0231556 | -0.693433 | 3.0136767 |
| 695 | 6077.05 | 575225 | 0.1021836 | 5/9/19 0:22 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0141578 | 6.70217E+12 | -0.0015472 | -0.0463335 | 3.0141578 |
| 696 | 6056.56 | 575225 | 0.1018391 | 5/9/19 0:27 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.003995 | 6.70217E+12 | -0.0012057 | -0.0361067 | 3.003995 |
| 697 | 6053.34 | 575225 | 0.1017849 | 5/9/19 0:37 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0023979 | 6.70217E+12 | -0.0181456 | -0.5434002 | 3.0023979 |
| 698 | 6047.02 | 575227 | 0.1035951 | 5/9/19 0:42 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0557938 | 6.70217E+12 | -0.0191353 | -0.5730385 | 3.0557938 |
| 699 | 6061.52 | 575227 | 0.1038435 | 5/9/19 0:47 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0631212 | 6.70217E+12 | -0.0107209 | -0.3210552 | 3.0631212 |
| 700 | 6050.01 | 575229 | 0.103384 | 5/9/19 0:52 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0495651 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0495651 |
| 701 | 6044.15 | 575229 | 0.1032838 | 5/9/19 0:57 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0466114 | 6.70217E+12 | 0.0004798 | -0.1221764 | 3.0466114 |
| 702 | 6044.76 | 575229 | 0.1032943 | 5/9/19 1:02 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0469188 | 6.70217E+12 | -0.0033111 | -0.0991564 | 3.0469188 |
| 703 | 6039.56 | 575229 | 0.1032054 | 5/9/19 1:07 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0442977 | 6.70217E+12 | -0.0031204 | -0.0934456 | 3.0442977 |
| 704 | 6042.9 | 575231 | 0.1030119 | 5/9/19 1:12 | -0.0084514 | -0.2530913 | 4.82866E+13 | 3.0385906 | 6.70217E+12 | -0.0012951 | -0.0387839 | 3.0385906 |
| 705 | 6042.77 | 575232 | 0.1030817 | 5/9/19 1:17 | -0.0084514 | -0.2530913 | 4.82528E+13 | 3.0406489 | 6.70217E+12 | -0.0005672 | -0.0169857 | 3.0406489 |
| 706 | 6053.94 | 575233 | 0.1035545 | 5/9/19 1:22 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0486951 | 6.70217E+12 | -0.0121807 | -0.3647714 | 3.0486951 |
| 707 | 6056.93 | 575233 | 0.1034055 | 5/9/19 1:27 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0502008 | 6.70217E+12 | -0.0149888 | -0.4488646 | 3.0502008 |
| 708 | 6055.69 | 575233 | 0.1033843 | 5/9/19 1:32 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0495763 | 6.70217E+12 | -0.0147726 | -0.4423901 | 3.0495763 |
| 709 | 6058.16 | 575233 | 0.1034265 | 5/9/19 1:37 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0508202 | 6.70217E+12 | -0.0157309 | -0.471088 | 3.0508202 |
| 710 | 6059.3 | 575234 | 0.1038084 | 5/9/19 1:42 | -0.0084514 | -0.2530913 | 4.80461E+13 | 3.0620845 | 6.70217E+12 | -0.0227758 | -0.6820593 | 3.0620845 |
| 711 | 6061.34 | 575235 | 0.1031342 | 5/9/19 1:47 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0421965 | 6.70217E+12 | -0.0265233 | -0.7942844 | 3.0421965 |
| 712 | 6073.89 | 575235 | 0.1033477 | 5/9/19 1:52 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0484953 | 6.70217E+12 | -0.0258125 | -0.7729983 | 3.0484953 |
| 713 | 6070.6 | 575236 | 0.1036534 | 5/9/19 1:57 | -0.0084514 | -0.2530913 | 4.82077E+13 | 3.0575115 | 6.70217E+12 | -0.0270166 | -0.8090571 | 3.0575115 |
| 714 | 6070.34 | 575237 | 0.1039744 | 5/9/19 2:02 | -0.009959 | -0.2982389 | 4.80568E+13 | 3.0669809 | 6.70217E+12 | -0.0241909 | -0.7244368 | 3.0669809 |
| 715 | 6070.64 | 575238 | 0.1033994 | 5/9/19 2:07 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0500217 | 6.70217E+12 | -0.0192845 | -0.5775065 | 3.0500217 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 716 | 6066.1 | 575238 | 0.1033221 | 5/9/19 2:12 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0477407 | 6.70217E+12 | -0.0253576 | -0.7593756 | 3.0477407 |
| 717 | 6051.34 | 575238 | 0.1030707 | 5/9/19 2:17 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.040325 | 6.70217E+12 | -0.0277084 | -0.8297742 | 3.040325 |
| 718 | 6061.78 | 575239 | 0.1040791 | 5/9/19 2:22 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.0700698 | 6.70217E+12 | -0.0259793 | -0.7779934 | 3.0700698 |
| 719 | 6063.51 | 575239 | 0.1041088 | 5/9/19 2:27 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.070946 | 6.70217E+12 | -0.0268247 | -0.8033103 | 3.070946 |
| 720 | 6069.07 | 575240 | 0.1042563 | 5/9/19 2:32 | -0.009959 | -0.2982389 | 4.79168E+13 | 3.0752977 | 6.70217E+12 | -0.0240329 | -0.7197052 | 3.0752977 |
| 721 | 6065.45 | 575242 | 0.1026794 | 5/9/19 2:37 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0287832 | 6.70217E+12 | -0.0250565 | -0.7503587 | 3.0287832 |
| 722 | 6056.78 | 575242 | 0.1025327 | 5/9/19 2:43 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0244539 | 6.70217E+12 | -0.0183811 | -0.5504527 | 3.0244539 |
| 723 | 6054.89 | 575242 | 0.1025007 | 5/9/19 2:48 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0235101 | 6.70217E+12 | -0.0211004 | -0.6318866 | 3.0235101 |
| 724 | 6052.82 | 575243 | 0.1032503 | 5/9/19 2:53 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.0456209 | 6.70217E+12 | -0.0280966 | -0.8413995 | 3.0456209 |
| 725 | 6054.43 | 575243 | 0.1032777 | 5/9/19 2:58 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.046431 | 6.70217E+12 | -0.0255341 | -0.7646612 | 3.046431 |
| 726 | 6054.32 | 575244 | 0.1033884 | 5/9/19 3:03 | -0.0077595 | -0.2323712 | 4.82017E+13 | 3.049695 | 6.70217E+12 | -0.0035264 | -0.1056039 | 3.049695 |
| 727 | 6068.65 | 575246 | 0.1006368 | 5/9/19 3:08 | -0.0077595 | -0.2323712 | 4.96368E+13 | 2.9685297 | 6.70217E+12 | -0.0237767 | -0.7120329 | 2.9685297 |
| 728 | 6068.33 | 575249 | 0.0992317 | 5/9/19 3:13 | -0.0077595 | -0.2323712 | 5.037E+13 | 2.9270841 | 6.70217E+12 | -0.0227655 | -0.6817508 | 2.9270841 |
| 729 | 6063.73 | 575250 | 0.0992085 | 5/9/19 3:18 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9263997 | 6.70217E+12 | -0.0241747 | -0.7239517 | 2.9263997 |
| 730 | 6046.71 | 575250 | 0.09893 | 5/9/19 3:23 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9181857 | 6.70217E+12 | -0.0246606 | -0.7385028 | 2.9181857 |
| 731 | 6046.74 | 575251 | 0.099455 | 5/9/19 3:28 | -0.0077595 | -0.2323712 | 5.00453E+13 | 2.933671 | 6.70217E+12 | -0.0228565 | -0.684476 | 2.933671 |
| 732 | 6058.26 | 575252 | 0.0992865 | 5/9/19 3:33 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9286995 | 6.70217E+12 | -0.0237663 | -0.7117215 | 2.9286995 |
| 733 | 6064.08 | 575252 | 0.0993819 | 5/9/19 3:38 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.931513 | 6.70217E+12 | -0.0229553 | -0.6874347 | 2.931513 |
| 734 | 6061.98 | 575252 | 0.0993474 | 5/9/19 3:43 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9304978 | 6.70217E+12 | -0.0218107 | -0.6531578 | 2.9304978 |
| 735 | 6061.61 | 575252 | 0.0993414 | 5/9/19 3:48 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9303189 | 6.70217E+12 | -0.0228651 | -0.6847335 | 2.9303189 |
| 736 | 6055.44 | 575252 | 0.0992403 | 5/9/19 3:53 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9273362 | 6.70217E+12 | -0.0258057 | -0.7727947 | 2.9273362 |
| 737 | 6048.17 | 575253 | 0.1013391 | 5/9/19 3:58 | -0.0077595 | -0.2323712 | 4.91264E+13 | 2.9892481 | 6.70217E+12 | -0.0222549 | -0.6664601 | 2.9892481 |
| 738 | 6036.54 | 575253 | 0.101443 | 5/9/19 4:03 | -0.0064119 | -0.192015 | 4.91264E+13 | 2.9835001 | 6.70217E+12 | -0.0201096 | -0.6022155 | 2.9835001 |
| 739 | 6032.68 | 575254 | 0.1009675 | 5/9/19 4:08 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9782848 | 6.70217E+12 | -0.0220837 | -0.6613332 | 2.9782848 |
| 740 | 6036.52 | 575254 | 0.1010317 | 5/9/19 4:13 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9801806 | 6.70217E+12 | -0.0189611 | -0.5678217 | 2.9801806 |
| 741 | 6048.03 | 575254 | 0.1012244 | 5/9/19 4:18 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.985863 | 6.70217E+12 | -0.0284786 | -0.8528391 | 2.985863 |
| 742 | 6049.12 | 575254 | 0.1012426 | 5/9/19 4:23 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9864011 | 6.70217E+12 | -0.0265276 | -0.7944132 | 2.9864011 |
| 743 | 6047.1 | 575255 | 0.102742 | 5/9/19 4:28 | -0.0064119 | -0.192015 | 4.84471E+13 | 3.0306289 | 6.70217E+12 | -0.0220302 | -0.6597311 | 3.0306289 |
| 744 | 6040.01 | 575255 | 0.1026215 | 5/9/19 4:33 | -0.0064119 | -0.192015 | 4.84471E+13 | 3.0270756 | 6.70217E+12 | -0.0249572 | -0.7473849 | 3.0270756 |
| 745 | 6039.32 | 575256 | 0.1033913 | 5/9/19 4:38 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0497802 | 6.70217E+12 | -0.0273476 | -0.8189695 | 3.0497802 |
| 746 | 6037.47 | 575256 | 0.1033596 | 5/9/19 4:43 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0488459 | 6.70217E+12 | -0.0285916 | -0.8562231 | 3.0488459 |
| 747 | 6046.95 | 575256 | 0.1035219 | 5/9/19 4:48 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0536332 | 6.70217E+12 | -0.0276954 | -0.8293849 | 3.0536332 |
| 748 | 6051.57 | 575256 | 0.103601 | 5/9/19 4:53 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0559662 | 6.70217E+12 | -0.0189461 | -0.5673725 | 3.0559662 |
| 749 | 6052.41 | 575257 | 0.1025409 | 5/9/19 4:58 | -0.0064119 | -0.192015 | 4.85847E+13 | 3.0246966 | 6.70217E+12 | -0.0213883 | -0.6405083 | 3.0246966 |
| 750 | 6058.73 | 575257 | 0.102648 | 5/9/19 5:03 | -0.001004 | -0.0300665 | 4.85847E+13 | 3.027855 | 6.70217E+12 | -0.0284985 | -0.8534351 | 3.027855 |
| 751 | 6054.8 | 575258 | 0.1018989 | 5/9/19 5:08 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0057607 | 6.70217E+12 | -0.0254371 | -0.7617564 | 3.0057607 |
| 752 | 6051.38 | 575258 | 0.1018414 | 5/9/19 5:13 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0040629 | 6.70217E+12 | -0.0222254 | -0.6655766 | 3.0040629 |
| 753 | 6048.3 | 575258 | 0.1017896 | 5/9/19 5:18 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0025339 | 6.70217E+12 | -0.0245437 | -0.735002 | 3.0025339 |
| 754 | 6051.14 | 575258 | 0.1018373 | 5/9/19 5:23 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0039438 | 6.70217E+12 | -0.0272051 | -0.8147021 | 3.0039438 |
| 755 | 6057.19 | 575258 | 0.1019392 | 5/9/19 5:28 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0069471 | 6.70217E+12 | -0.026005 | -0.7787631 | 3.0069471 |
| 756 | 6059.15 | 575259 | 0.1040181 | 5/9/19 5:33 | -0.001004 | -0.0300665 | 4.79481E+13 | 3.0682693 | 6.70217E+12 | -0.0148258 | -0.4439833 | 3.0682693 |
| 757 | 6061.72 | 575260 | 0.1037848 | 5/9/19 5:38 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0613901 | 6.70217E+12 | -0.0244808 | -0.7331184 | 3.0613901 |
| 758 | 6057.72 | 575260 | 0.1037164 | 5/9/19 5:43 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.05937 | 6.70217E+12 | -0.0243887 | -0.7303603 | 3.05937 |
| 759 | 6057.7 | 575260 | 0.103716 | 5/9/19 5:48 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0593599 | 6.70217E+12 | -0.0198852 | -0.5954955 | 3.0593599 |
| 760 | 6047.35 | 575260 | 0.1035388 | 5/9/19 5:53 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0541327 | 6.70217E+12 | -0.0198875 | -0.5955643 | 3.0541327 |
| 761 | 6044.98 | 575261 | 0.1039808 | 5/9/19 5:58 | -0.001004 | -0.0300665 | 4.78531E+13 | 3.0671699 | 6.70217E+12 | -0.0198792 | -0.5953158 | 3.0671699 |
| 762 | 6040.28 | 575262 | 0.1043375 | 5/9/19 6:03 | 0.0099891 | 0.2991402 | 4.76524E+13 | 3.077692 | 6.70217E+12 | -0.0173633 | -0.519973 | 3.077692 |
| 763 | 6034.01 | 575263 | 0.1041918 | 5/9/19 6:08 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0733946 | 6.70217E+12 | -0.018275 | -0.5472753 | 3.0733946 |
| 764 | 6034.26 | 575263 | 0.1041961 | 5/9/19 6:13 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0735219 | 6.70217E+12 | -0.0079803 | -0.2389834 | 3.0735219 |
| 765 | 6037.47 | 575263 | 0.1042516 | 5/9/19 6:18 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0751569 | 6.70217E+12 | -0.0028126 | -0.084228 | 3.0751569 |
| 766 | 6035.61 | 575264 | 0.1036859 | 5/9/19 6:23 | 0.0099891 | 0.2991402 | 4.79148E+13 | 3.0584702 | 6.70217E+12 | -0.0009188 | -0.027515 | 3.0584702 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 767 | 6032.26 | 575264 | 0.1036283 | 5/9/19 6:28 | 0.0098991 | 0.2991402 | 4.79148E+13 | 3.0567726 | 6.70217E+12 | -0.0017763 | -0.0531943 | 3.0567726 |
| 768 | 6035.08 | 575266 | 0.1012996 | 5/9/19 6:33 | 0.0098991 | 0.2991402 | 4.90392E+13 | 2.988081 | 6.70217E+12 | -0.0029613 | -0.0886811 | 2.988081 |
| 769 | 6038.27 | 575266 | 0.1013531 | 5/9/19 6:33 | 0.0098991 | 0.2991402 | 4.90392E+13 | 2.9896604 | 6.70217E+12 | -0.0017698 | -0.0529996 | 2.9896604 |
| 770 | 6038.35 | 575267 | 0.1004336 | 5/9/19 6:48 | 0.0098991 | 0.2991402 | 4.94889E+13 | 2.9625364 | 6.70217E+12 | -0.0040978 | -0.1227155 | 2.9625364 |
| 771 | 6041.06 | 575267 | 0.1004787 | 5/9/19 6:48 | 0.0098991 | 0.2991402 | 4.94889E+13 | 2.963866 | 6.70217E+12 | -0.0041121 | -0.1231437 | 2.963866 |
| 772 | 6032.6 | 575269 | 0.1003466 | 5/9/19 6:53 | 0.0098991 | 0.2991402 | 4.94846E+13 | 2.9599697 | 6.70217E+12 | -0.0017941 | -0.0537273 | 2.9599697 |
| 773 | 6038.62 | 575269 | 0.1004467 | 5/9/19 6:58 | 0.0098991 | 0.2991402 | 4.94846E+13 | 2.9629235 | 6.70217E+12 | -0.0169009 | -0.5061256 | 2.9629235 |
| 774 | 6033.18 | 575269 | 0.1001899 | 5/9/19 7:03 | 0.015734 | 0.4711809 | 4.94846E+13 | 2.9553477 | 6.70217E+12 | -0.0127165 | -0.3808168 | 2.9553477 |
| 775 | 6018.06 | 575270 | 0.100393 | 5/9/19 7:08 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9613379 | 6.70217E+12 | -0.0057831 | -0.1731846 | 2.9613379 |
| 776 | 6028.56 | 575270 | 0.1005681 | 5/9/19 7:13 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9665047 | 6.70217E+12 | -0.0011814 | -0.035379 | 2.9665047 |
| 777 | 6023.05 | 575271 | 0.1000255 | 5/9/19 7:18 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9505 | 6.70217E+12 | -0.0018878 | -0.0565333 | 2.9505 |
| 778 | 6002.6 | 575271 | 0.0996859 | 5/9/19 7:23 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9404822 | 6.70217E+12 | -0.0019315 | -0.057842 | 2.9404822 |
| 779 | 6004.55 | 575271 | 0.0997183 | 5/9/19 7:28 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9414374 | 6.70217E+12 | -0.0032781 | -0.0981682 | 2.9414374 |
| 780 | 6023.65 | 575271 | 0.1000355 | 5/9/19 7:33 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9507939 | 6.70217E+12 | -0.0044118 | -0.1321187 | 2.9507939 |
| 781 | 6022.52 | 575272 | 0.1006869 | 5/9/19 7:38 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9700094 | 6.70217E+12 | -0.0183056 | -0.5481917 | 2.9700094 |
| 782 | 6016.76 | 575272 | 0.1005906 | 5/9/19 7:43 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9671688 | 6.70217E+12 | -0.004465 | -0.1337119 | 2.9671688 |
| 783 | 6007.87 | 575272 | 0.100442 | 5/9/19 7:48 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9627847 | 6.70217E+12 | -0.0011594 | -0.0347202 | 2.9627847 |
| 784 | 5998.51 | 575272 | 0.1002855 | 5/9/19 7:53 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9581688 | 6.70217E+12 | -0.0019525 | -0.0584709 | 2.9581688 |
| 785 | 6004.67 | 575273 | 0.101848 | 5/9/19 7:58 | 0.015734 | 0.4711809 | 4.85294E+13 | 3.0042572 | 6.70217E+12 | -0.016446 | -0.4925029 | 3.0042572 |
| 786 | 5986.82 | 575273 | 0.1015452 | 5/9/19 8:03 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9953265 | 6.70217E+12 | -0.0226577 | -0.6785226 | 2.9953265 |
| 787 | 5966.01 | 575273 | 0.1011922 | 5/9/19 8:08 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9849149 | 6.70217E+12 | -0.0040549 | -0.1214307 | 2.9849149 |
| 788 | 5975.72 | 575273 | 0.1013569 | 5/9/19 8:13 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.989773 | 6.70217E+12 | 0.0088876 | 0.266154 | 2.989773 |
| 789 | 5974.19 | 575273 | 0.101331 | 5/9/19 8:18 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9890075 | 6.70217E+12 | 0.0059397 | 0.1778742 | 2.9890075 |
| 790 | 5989.16 | 575275 | 0.1021458 | 5/9/19 8:23 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130416 | 6.70217E+12 | 0.005809 | 0.1739602 | 3.0130416 |
| 791 | 5989.1 | 575275 | 0.1024448 | 5/9/19 8:28 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130114 | 6.70217E+12 | 0.0001868 | 0.005594 | 3.0130114 |
| 792 | 5990.38 | 575275 | 0.1021666 | 5/9/19 8:33 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0136553 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0136553 |
| 793 | 5999.35 | 575275 | 0.1023196 | 5/9/19 8:38 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.018168 | 6.70217E+12 | -0.0026113 | -0.0781997 | 3.018168 |
| 794 | 6009.99 | 575276 | 0.1040749 | 5/9/19 8:43 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0699468 | 6.70217E+12 | 0.0003791 | 0.0113528 | 3.0699468 |
| 795 | 6015.23 | 575276 | 0.1041657 | 5/9/19 8:48 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0726234 | 6.70217E+12 | 0.0045541 | 0.1363801 | 3.0726234 |
| 796 | 6006.59 | 575276 | 0.1040161 | 5/9/19 8:53 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0682101 | 6.70217E+12 | 0.0020439 | 0.061208 | 3.0682101 |
| 797 | 6012.06 | 575276 | 0.1041108 | 5/9/19 8:58 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0710042 | 6.70217E+12 | 0.0057903 | 0.1734002 | 3.0710042 |
| 798 | 5997.24 | 575276 | 0.1038541 | 5/9/19 9:03 | 0.021087 | 0.6314854 | 4.75331E+13 | 3.063434 | 6.70217E+12 | 0.0154138 | 0.4615919 | 3.063434 |
| 799 | 6009.31 | 575277 | 0.1048522 | 5/9/19 9:08 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0928732 | 6.70217E+12 | 0.007881 | 0.2360097 | 3.0928732 |
| 800 | 6014.99 | 575277 | 0.1049513 | 5/9/19 9:13 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0957966 | 6.70217E+12 | 0.0015859 | 0.0474924 | 3.0957966 |
| 801 | 6015.14 | 575277 | 0.1049539 | 5/9/19 9:18 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0958738 | 6.70217E+12 | 0.010437 | 0.330722 | 3.0958738 |
| 802 | 6010.98 | 575277 | 0.1048813 | 5/9/19 9:23 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0937327 | 6.70217E+12 | 0.0082541 | 0.2471828 | 3.0937327 |
| 803 | 6015.8 | 575279 | 0.1061867 | 5/9/19 9:28 | 0.021087 | 0.6314854 | 4.66328E+13 | 3.13224 | 6.70217E+12 | 0.0098213 | 0.2941152 | 3.13224 |
| 804 | 6008.98 | 575281 | 0.1036694 | 5/9/19 9:33 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0579847 | 6.70217E+12 | 0.0137284 | 0.4111198 | 3.0579847 |
| 805 | 6005.02 | 575281 | 0.1036011 | 5/9/19 9:38 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0559695 | 6.70217E+12 | 0.0148862 | 0.4457921 | 3.0559695 |
| 806 | 5992.86 | 575281 | 0.1033913 | 5/9/19 9:43 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0497812 | 6.70217E+12 | 0.019156 | 0.5736583 | 3.0497812 |
| 807 | 6001.7 | 575281 | 0.1035438 | 5/9/19 9:48 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0542799 | 6.70217E+12 | 0.0155476 | 0.4655988 | 3.0542799 |
| 808 | 5996.77 | 575281 | 0.1034587 | 5/9/19 9:53 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.051771 | 6.70217E+12 | 0.0127646 | 0.3822572 | 3.051771 |
| 809 | 5997.26 | 575281 | 0.1034672 | 5/9/19 9:58 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0520204 | 6.70217E+12 | 0.01036 | 0.3102475 | 3.0520204 |
| 810 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:03 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | -0.0001443 | -0.0043213 | 3.050967 |
| 811 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:08 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | 0.0134747 | 0.4035223 | 3.050967 |
| 812 | 5978.15 | 575281 | 0.1031375 | 5/9/19 10:13 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0422953 | 6.70217E+12 | 0.0153319 | 0.4591393 | 3.0422953 |
| 813 | 5989.44 | 575281 | 0.1033323 | 5/9/19 10:18 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0480408 | 6.70217E+12 | 0.016155 | 0.4837884 | 3.0480408 |
| 814 | 6001.74 | 575282 | 0.1070813 | 5/9/19 10:23 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.158626 | 6.70217E+12 | 0.0174376 | 0.522198 | 3.158626 |
| 815 | 6010.06 | 575282 | 0.1072297 | 5/9/19 10:28 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.1630047 | 6.70217E+12 | 0.0234385 | 0.7019049 | 3.1630047 |
| 816 | 6009.71 | 575283 | 0.1079065 | 5/9/19 10:33 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1829698 | 6.70217E+12 | 0.0203173 | 0.6084354 | 3.1829698 |
| 817 | 5995.73 | 575283 | 0.1076555 | 5/9/19 10:38 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1755655 | 6.70217E+12 | 0.019624 | 0.5876734 | 3.1755655 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 818 | 6000.73 | 575284 | 0.1065399 | 5/9/19 10:43 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.142657 | 6.70217E+12 | 0.0143614 | 0.4300761 | 3.142657 |
| 819 | 6007.62 | 575284 | 0.1066622 | 5/9/19 10:48 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1462654 | 6.70217E+12 | 0.0184275 | 0.5518422 | 3.1462654 |
| 820 | 6006.48 | 575284 | 0.106642 | 5/9/19 10:53 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1456683 | 6.70217E+12 | 0.0226632 | 0.6786873 | 3.1456683 |
| 821 | 5999.23 | 575284 | 0.1065133 | 5/9/19 10:58 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1418714 | 6.70217E+12 | 0.2007318 | 6.0112483 | 6.0112483 |
| 822 | 6004.02 | 575284 | 0.1065983 | 5/9/19 11:03 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.14438 | 6.70217E+12 | 0.0307427 | 0.9206414 | 3.14438 |
| 823 | 6000.99 | 575284 | 0.1065445 | 5/9/19 11:08 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1427931 | 6.70217E+12 | 0.0293874 | 0.8800547 | 3.1427931 |
| 824 | 6003.38 | 575284 | 0.1065869 | 5/9/19 11:13 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1440448 | 6.70217E+12 | 0.0349274 | 1.0459592 | 3.1440448 |
| 825 | 6014.88 | 575284 | 0.1067911 | 5/9/19 11:18 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1500675 | 6.70217E+12 | 0.0260766 | 0.7809072 | 3.1500675 |
| 826 | 6026.81 | 575284 | 0.1070029 | 5/9/19 11:24 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1563154 | 6.70217E+12 | 0.0118225 | 0.3540445 | 3.1563154 |

From: Michael McNamara <michael.mcnamara@lancium.com>

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Cc: Jon Cohen <jon.cohen@lancium.com>, David Henson <david.henson@lancium.com>, Raymond Cline <recline@lancium.com>, Eric Kutscha <eric.kutscha@lancium.com>, Prashant Gupta <prashant.gupta@lancium.com>

Subject: Lancium / SBI Update - Sept 27th

Date: Thu, 27 Sep 2018 16:11:42 -0500

Importance: Normal

Attachments: EDFR-Lancium_Hereford_Terms_Summary_DRAFT_20180926.docx;
Acciona_2018SEP19_Site_Visit.pdf; ServiceNow_Location_Entry.png;
ServiceNow_Device_Entry.png; Tier44_Power_Management_Dashboard.png

SBI Agenda for Call / Sept 27th

Deal Status

Invenergy / McAdoo

- Special T&D Tariff
 - o Lowest T&D level appears to be around ~\$3 - \$4/MWh
 - o This tariff level wouldn't allow us to achieve <\$25/MWh pricing and give Invenergy a material price uplift at McAdoo
- Self Generation Structure now preferred path
 - o Invenergy has recruited more team members to structure transaction

Acciona / Dempsey Ridge

- Legal confirmation that no other approvals required except FERC exemption
- Successful site visit last week (See "Acciona 2018SEP19 Site Visit")
- Follow up technical visit mid October

EDF / Hereford I

- Nearly finalized term sheet (See "EDFR-Lancium Hereford Terms Summary DRAFT 20180926" for latest turn)
- Very adverse pricing environment which should allow Lancium's electricity cost to be to be below \$20/MWh

NextEra / Blue Summit

- Term sheets exchanged and awaiting NEE feedback

Lincoln Clean Energy / Orsted

- Orsted (Danish national utility) recently agreed to purchase LCE
- LCE now re-engaged with Lancium for data centers at wind operations in TX
- Asked us to review their largest development project (Tahoka - 900MW multistage wind farm!)

Build and Operational Update

Box Build

- Delivered on Sept 24th
- Energized and operational
- Video files are in the SBI due diligence drive at: SBI/Update Videos - Sept 27
- JV Driver team and outside engineering convening in Houston next week
- Finalize design specs on next 5MW for delivery at end of Oct

Thomas Road / Ramping Testing

| |
|--|
| Bearbox v Lancium Trial Exhibit TX176 |
|--|

- 2.5MW Stage 1 complete
- NOC and offices now nearly complete
- Ramping successful for full 120 miners in under 5 min up and down (<2 min down and <4 min up)
- Tier44 and ServiceNow systems now functional and running (See "ServiceNow" & "Tier44" pictures attached)

Site Visit

- We are ready for week of Oct 15th

Patent Filings

- Four new filings in Sept:
 - o 18-865 Systems and Methods for Dynamic Power Routing with Behind-the-Meter Energy Storage
 - o 18-872 Providing Computational Resource Availability Based on Power-Generation Economics
 - o 18-873 System of Critical Datacenters and Behind-the-Meter Flexible Datacenters
 - o 18-1113 Methods and Systems for Distributed Power Control

Other Items:

Update on Tariff Considerations

--

(917) 833-2720

BUSINESS CONFIDENTIAL AND PROPRIETARY**EDFR DRAFT 09/19/2018**

SUMMARY OF TERMS:
EDFR-Lancium Hereford Behind-the-Meter Energy Sale

The following is a summary statement of the principal terms and conditions relating to a potential transaction. It is not a commitment or binding offer to enter into any agreement and is not a comprehensive statement of all of the terms and conditions of the proposed transaction.

| | |
|---------------------------|---|
| 1. Buyer | Lancium LLC entity [NTD: Specific entity and relationship to Lancium to be defined.] |
| 2. Wind Seller | EDF Renewables Asset Management on behalf of the Hereford I Wind Project LLC (" <u>Hereford</u> ") via Deaf Smith Electric Cooperative (" <u>Coop</u> ") |
| 3. Wind Project | Hereford I Wind project, a 200 MW operating wind electric generating facility located in Deaf Smith County, TX owned by EDF Renewables and Blackrock, Inc. |
| 4. Server Facility | <p>A distributed data center facility to be constructed and operated by Buyer. The Server Facility will require a minimum of [X] MW of electric power ("<u>Auxiliary Power</u>"¹) and a maximum of [Y] MW ("<u>Maximum Power</u>").</p> <p>Server Facility will ramp up and down between Auxiliary Power and Maximum Power in response to available output from Wind Project.²</p> <p>Auxiliary Power will be the power required to power critical networking and control systems.</p> <p>If Auxiliary Power exceeds the MW output available from Wind Project at any point in time, Buyer will purchase that excess from Coop as defined in "19. Other Agreements" below.³</p> |
| 5. Wind PPA | <p>Buyer and Wind Seller will enter into back to back power purchase agreements with Coop (further described in other agreements below).</p> <p>Wind Seller will sell and deliver to Buyer via Coop, and Buyer will purchase and accept from Wind Seller, via Coop all of the net electric energy generated by the first [Y] MW slice of Wind Project generating capacity ("<u>Generation Slice</u>") and delivered to the POI defined below ("<u>Wind Energy</u>"), but excluding all associated environmental credits, including all renewable energy credits, benefits, offsets, and allowances generated by the Wind Project, as well as any investment or production tax credits or similar government incentives.</p> <p>The Generation Slice MW amount will be equal to the Maximum Power MW amount, which will be the same as the Server Facility nameplate MW.⁴</p> <p>The Buyer will purchase and accept all Wind Energy produced by the lower</p> |

¹ NTD: Auxiliary power assumed to be approximately 5% of Maximum Power. Specific MW level to be discussed and detailed.

² NTD: Server Facility ramp rate and MW increments to be discussed, recognizing ramping down will be faster than ramping up.

³ NTD: Buyer to confirm that Auxiliary Power will be drawn from Hereford when available

⁴ NTD: Such MW amount will vary between Implementation and Commercial phases as detailed below.

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| | |
|--------------------------------|--|
| | of as-available Wind Project MW output and the Generation Slice MW output over any measurement period, subject to the provisions below in “12. Curtailments”. ⁵ |
| 6. Conditions Precedent | <p>Seller: Legal and Senior management review and approval of the terms and conditions and Seller’s Board Approval.</p> <p>Buyer: Buyer’s Board or Risk Committee approval and confirmation that Buyer has the right from Deaf Smith Electric Coop and Golden Spread Electric Coop (if applicable) to pursue this energy purchase contract.⁶</p> |
| 7. Term | <p>Implementation Phase for a Generation Slice of [5] MW will have an initial term of [1] year.</p> <p>Commercial Phase for a Generation Slice of [45] will have an initial term of [2] years, commencing at conclusion of Implementation Phase.⁷</p> <p>Buyer and Seller will have option to extend an additional two years if mutually agreed.</p> |
| 8. Base Price | The real-time settlement price per MWh received by Wind Seller for power sold at the Wind Project’s ERCOT node. |
| 9. Contract Price | <p>The <u>Base Price</u>, plus an adder of \$[10.50] per MWh (the “<u>Adder</u>”).</p> <p>The Adder to be paid to Wind Seller will be reduced by 50% of the aggregate administrative fee charged by Coop to Buyer</p> |
| 10. Interconnection | <p>Buyer will be responsible for all costs and risks associated with the development, construction, completion and operation of the Server Facility and its interconnection to the Wind Project. Such costs will include the installation of a power circuit breaker or similar equipment at the main collector substation of the Wind Project to be specified in the Wind PPA (the “<u>POI</u>”), as well as a power meter and the Main Power Isolation Equipment further described below.</p> <p>Wind Seller will have the right to inspect installation and interconnection of the Server Facility and all related equipment, including the Isolation Equipment. Wind Seller will likewise have approval rights for contractor(s) and plans selected by Buyer prior to commencement of any work on Interconnection.⁸</p> <p>To the extent interconnection of the Server Facility results in a loss of generation from the Wind Project, Buyer shall reimburse Seller for the</p> |

⁵ NTD: Definite Agreement may include consideration of “over powering” options for Server Facility and associated physical and financial parameters, to be discussed.

⁶ NTD: Seller’s final participation in this deal is very likely subject to review and approval by the Hereford Project Tax Equity Providers and potentially other equity and hedge parties. Clarification of the roles of Deaf Smith Electric Coop and Golden Spread Electric Coop will also be required.

⁷ NTD: Parties to discuss conditions required to move from Implementation to Commercial Phase.

⁸ NTD: Buyer wishes for Seller to pick contractor(s) based on experience and relationships.

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| | |
|---------------------------|--|
| | <p>arising lost revenue, computed as the expected generation times the Base Price during the outage period, up to a maximum equal to the Credit Support as defined below. Interconnection of the Server Facility may require all or a portion of the Wind Project to be taken offline for a period not to exceed [●] hours and at a date and time selected by Wind Seller.</p> |
| 11. Isolation | <p>Buyer will install a breaker switch and/or such other equipment as Wind Seller may require on the electric distribution line running from the POI to the Server Facility as may be necessary to allow Wind Seller to isolate the Server Facility from the circuit of which it is part (the “<u>Main Isolation Equipment</u>”).</p> <p>The Wind PPA will give Wind Seller complete control of the operation of the Main Isolation Equipment and the portion of the distribution line running from the POI to the Main Isolation Equipment.⁹</p> |
| 12. Curtailments | <p>Wind Seller will have the right to curtail delivery of Energy to Buyer in its discretion, through operation of the Main Isolation Equipment or otherwise, to avoid potential injury to individuals or to property. In no case will non-delivery of Wind Energy give rise to any further obligation to Buyer.</p> <p>Buyer will have the right to curtail Wind Energy delivered pursuant to the Wind PPA, (1) for safety purposes (2) if the Base Price plus the Adder is greater than [\$75.00 per MWh on an hour ahead basis] and (3) for a period of twenty-fours each calendar quarter to perform maintenance on the Server Facility. In no case will non-acceptance of Wind Energy give rise to any further obligation to Buyer.¹⁰</p> |
| 13. Permitting | <p>Buyer will be responsible for obtaining all permits at Buyer’s time, risk and expense necessary for the construction, operation and maintenance of the Server Facility and related equipment in accordance with good utility practice. Buyer will similarly be responsible for obtaining permits necessary for the purchase of wind energy from Wind Seller. Wind Seller will provide assistance to Buyer in obtaining such permits, upon Buyer’s reasonable request and at Buyer’s expense. Permits to be obtained by Buyer will be listed in the Wind PPA and Buyer will provide periodic reports to Wind Seller on progress toward obtaining them.</p> <p>For the avoidance of doubt, Wind Seller will not have the authority to require Lancium to obtain wildlife or similar permits that are not required or recommended by any governmental authority.</p> |
| 14. Credit Support | <p>To secure its obligations under the Wind PPA, Buyer will establish credit support in the form of a Letter of Credit, Cash Collateral, or other Acceptable form as agreed by Seller. Buyer credit support shall be in the amount of 3 months of Adder on the Maximum Power amount for each Phase.¹¹</p> |

⁹ NTD: Wind Seller rights and triggers for isolating server facility to be fully defined in a Definitive Agreement.

¹⁰ NTD: Safety purposes and maintenance non-acceptance to be further discussed. Parties also to discuss time frame for providing curtailment directives and also ramp up/ramp down directives.

¹¹ NTD: Specific credit \$ amounts to be computed based on final details of Generation Slice and Adder.

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| | |
|-----------------------------------|---|
| 15. Cooperation | The parties will agree to cooperate and exchange information reasonably necessary to permit, construct, interconnect and operate the Server Facility. |
| 16. Title and Risk of Loss | [Title and risk of loss to the Energy will pass from Wind Seller to Buyer at the locations of the Main Isolation Equipment.] ¹² |
| 17. Operating Procedures | <p>The Wind PPA will set forth key points of contact for Wind Seller and Buyer to coordinate the daily administration of the Wind PPA. Wind Seller will provide [hourly] forecasting of available Wind Energy to Buyer or such other incremental forecasting as may be necessary for the safe operation of the Server Facility.¹³</p> <p>Buyer maintenance personnel will have access to the restroom facilities in the Wind Project's O&M building when on site, as well as any open conference room facilities as they may be available.</p> <p>At Buyer's cost, Wind Seller will provide Buyer with access to necessary communications equipment via [a fiber connection] from the Server Facility to the Wind Project's O&M building or otherwise.</p> <p>Operating protocol between Wind Seller and Wind Buyer shall form an appendix to the Wind PPA. Operating protocol will specify Scheduling obligations.</p> |
| 18. Remedies; Mitigation | In the event of a dispute relating to the Wind PPA, Wind Seller and Buyer will nominate executive employees following formal notice of dispute from either party for meetings and in-person discussions to take place over two weeks. In the event such dispute is not resolved at the end of two weeks, the parties will elect a neutral third-party arbitrator to resolve their dispute following submission of written arguments by both parties. ¹⁴ |
| 19. Other Agreements | <p>To facilitate the Wind PPA, Wind Seller, Coop and Buyer will enter into simultaneous "back-to-back" power purchase agreements for the sale and purchase of Wind Energy to be delivered by the Wind Seller to the POI (the "<u>PPAs</u>"). Terms of the PPAs will be separately negotiated between the Buyer and Coop. Buyer will work with Coop to include Golden Spread in the PPA between Buyer and Coop, if and as required.¹⁵</p> <p>Buyer and Coop will enter into a separate power purchase agreement for the sale and purchase of electric energy as may be necessary for the continuous operation of heating and air conditioning equipment within the Server Facility to the extent Wind Energy is not available to support such equipment at any time. This separate electric energy will be procured by Coop and in turn delivered to Buyer.</p> <p>Buyer will enter into a real property lease pursuant to which the owner(s) of land adjacent to the Wind Project's substation will lease to Buyer the right</p> |

¹² NTD: To be discussed in context of Coop role in transaction¹³ NTD: Forecasting obligations to be discussed¹⁴ NTD: Dispute resolution escalation approach to be discussed¹⁵ NTD: Specific points of negotiation and contracts required that may be separate from the Wind Seller PPA to be discussed.

BUSINESS CONFIDENTIAL AND PROPRIETARY

| | |
|--|---|
| | to construct, maintain and operate the Server Facility and related equipment on a parcel of property approximately 150' by 150'. |
| 20. Assignment | <p>Buyer may assign or transfer the Wind PPA or the Other Agreements in whole or in part, only with Wind Seller's prior written approval, not to be unreasonably withheld. For purposes of the foregoing sentence, assignment will include collateral assignment and any change of control of Buyer. Buyer's assigned party shall be responsible for providing credit security at least equal to Buyer, as defined by rating, net worth, or other metric to be specified in the Definitive Agreement.</p> <p>Seller may assign or transfer the Wind PPA or the Other Agreements in whole or in part to affiliates or to any new full or partial owners of Wind Project representing cash equity.</p> |
| 21. Confidentiality and Information Release | <p>The Term Sheet and information relating to or referencing this Term Sheet, and any draft documents or oral communications exchanged between the parties in connection with this Term Sheet are considered "<u>Confidential Information</u>" for purposes of the Nondisclosure Agreement between Buyer and Seller. The parties agree to treat Confidential Information disclosed hereunder in accordance with the terms and conditions of the NDA.</p> <p>None of the parties or their affiliates will issue any statement or communication to any third party or share the Confidential Information of or related to this Term Sheet (other than with its legal and accounting advisors, potential lenders, equity investors, acquirers or assignees who agree to keep such information confidential) regarding the Term Sheet, including, if applicable, its termination and the reasons therefor, without the written consent of the other party.¹⁶</p> |

THIS DOCUMENT DOES NOT CONSTITUTE A BINDING OFFER, SHALL NOT FORM THE BASIS FOR AN AGREEMENT BY ESTOPPEL OR OTHERWISE, AND IS CONDITIONED UPON EACH PARTY'S RECEIPT OF ALL REQUIRED MANAGEMENT APPROVALS (INCLUDING FINAL CREDIT AND LEGAL APPROVAL). ANY ACTIONS TAKEN BY A PARTY IN RELIANCE ON THE TERMS SET FORTH IN THIS DOCUMENT OR ON STATEMENTS MADE DURING NEGOTIATIONS PURSUANT TO THIS DOCUMENT SHALL BE AT THAT PARTY'S OWN RISK. UNTIL A PPA HAS BEEN EXECUTED BETWEEN THE PARTIES, NO PARTY SHALL HAVE ANY OTHER LEGAL OBLIGATIONS, EXPRESSED OR IMPLIED, OR ARISING IN ANY OTHER MANNER UNDER THIS LETTER OR IN THE COURSE OF NEGOTIATIONS (OTHER THAN ANY OBLIGATIONS UNDER ANY NONDISCLOSURE AGREEMENT EXECUTED BY THE PARTIES).

¹⁶ NTD: Parties to discuss requirements for Confidentiality with third party contractors (e.g., engineering) and if additional NDAs are necessary.

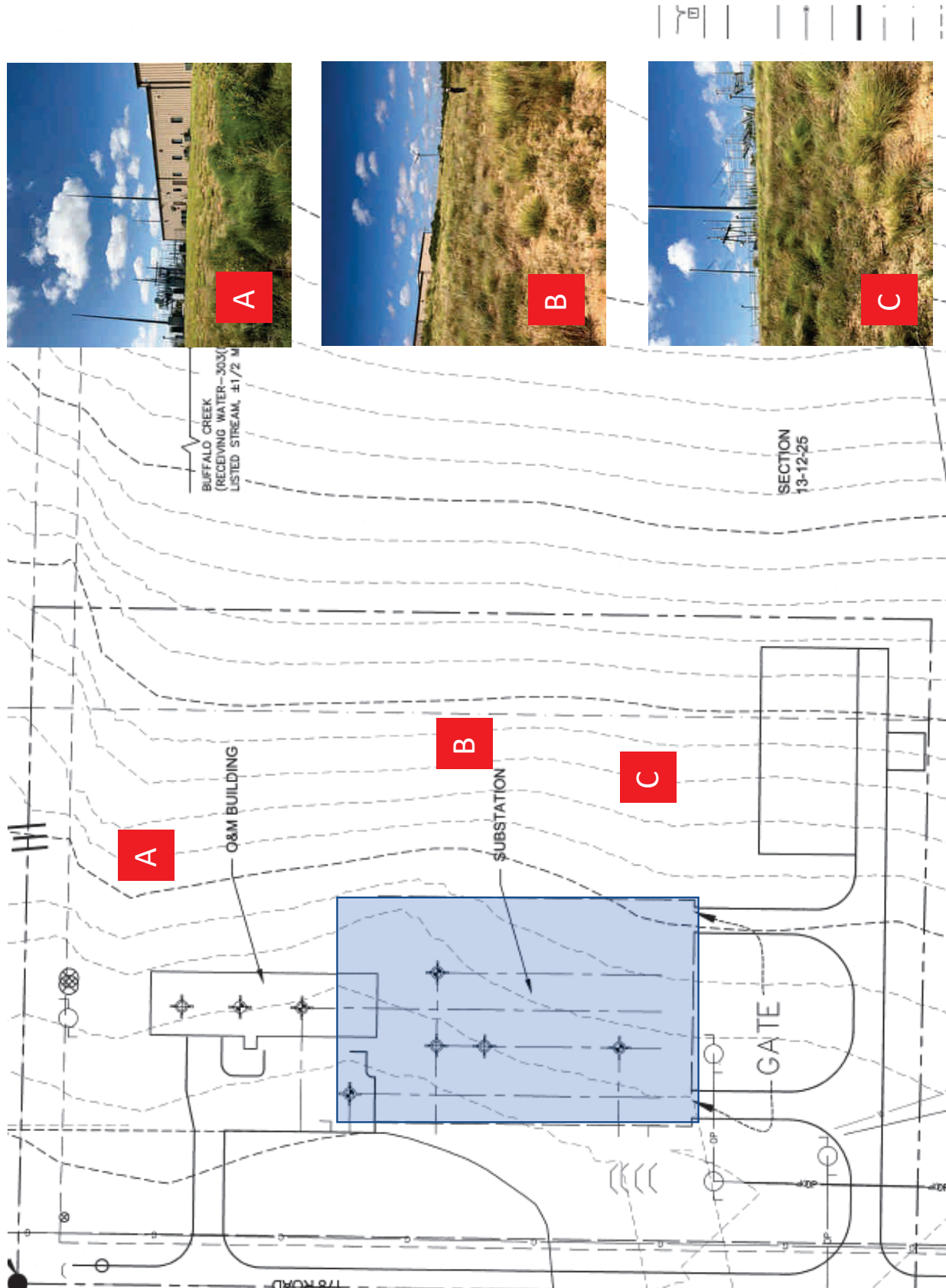
Acciona Big Smile

Site Visit September 19, 2019

Majors Topics regarding Interface to Lancium

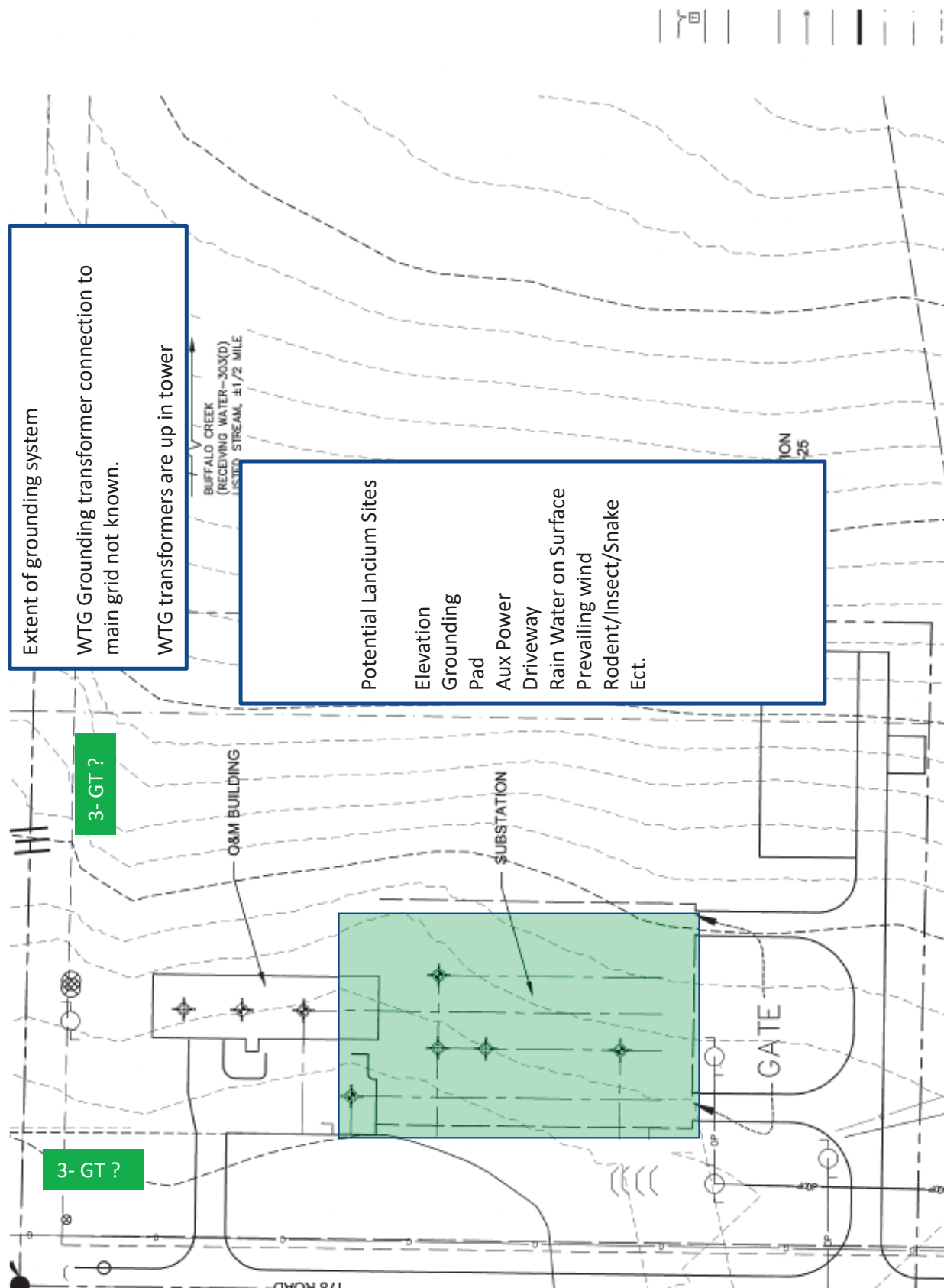
Bearbox v Lancium
Trial Exhibit
TX178

LANCIUM00014635



Appx11402

LANCIUM00014636



Water Well Pump House,
NW of OM building



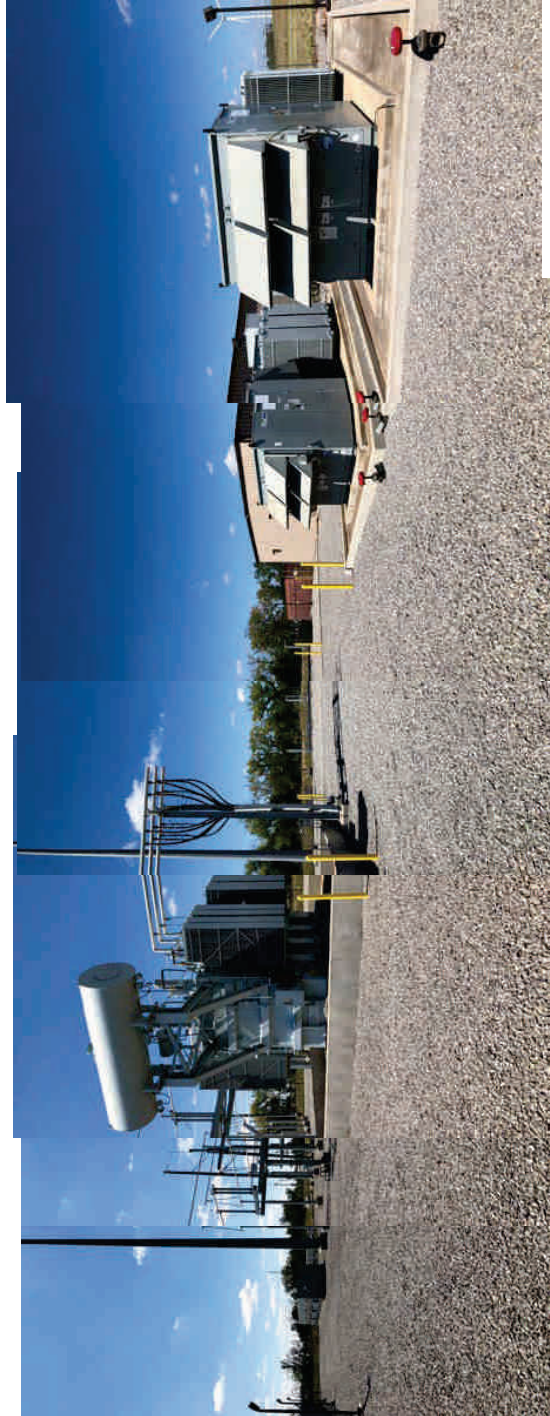
Septic tank, possible leaching field
East of OM building

34kV general arrangement,
installed on top of elevated
deck.



Unused conduit for future WTG's,
under NW corner of Switchgear deck,
Note, it is not under NE corner,





Appx11407

LANCIUM00014641

Data Center | ServiceNow

https://lancium.service-now.com/nav_to.do?uri=%2Fcmdb_ci_datacenter_list.do%3Fsysparm_userpref_module%3Da38c6ef24fd9960d3eeec321a310c71c%26sys... Vitor Henriques

LANCIUM Service Management

Filter navigator

- My Connected Apps
- My Profile
- My Tagged Documents
- My Tags
- My Knowledge Articles
- Take Survey
- My Assessments & Surveys
- My Assets
- My Notification Preferences
- Service Desk
- Tier44 EM/8
- Getting Started
- Map View

| | Name | Location | Power | Power consumption |
|--------------------------|------------------------------|-------------------------|-------|-------------------|
| <input type="checkbox"/> | DROK | Dempsey Ridge Wind Farm | | 2,000,000 |
| <input type="checkbox"/> | Lancium Demonstration Module | Lancium HQ | | 2,000,000 |
| <input type="checkbox"/> | Lancium Houston | Lancium HQ | | 2,000,000 |
| <input type="checkbox"/> | MCTX | McAdoo Wind Farm | | 2,000,000 |

Actions on selected rows...

1 to 4 of 4

LANCIUM00014642

Data Center | ServiceNow
LMF01031401 | Miner | ServiceNow
MCTX | Data Center | ServiceNow

https://lancium.service-now.com/u_cmdb_ci_miner.do?sys_id=b8200f0db54234048ccbfaf4b96199c

Miner LMF01031401

Dashboard Form Update Graphical View Delete

Name LMF01031401
Model ID Bitcoin Antminer S9
Manufacturer Bitcoin
Location
Class Miner
Comments

Serial number BLDT14PAHJABIM435
Asset
Asset tag

Configuration

| | |
|-------------|-----------|
| Host name | |
| IP Address | 10.1.31.1 |
| Description | |

Related Items

Contained by - Data Center

- IL3 | DR01 → | DR0K

Contained by - Racks

- IL1 | DR0K-DR01-01

Contained by - Computer Rooms

- IL2 | DR0K-DR01-01 → | DR01

Powered by - Power Supply Units

- IL1 | 1057X1810024Z

Update Graphical View Delete

Related Links

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LANCIUM00014643

Holistic Power Management®

Sanjiv Hasting Stop Hasting. Pabopol Miner. Selected All. Barbox London Trial Exhibit TX180

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Appx11410

From: Michael McNamara <michael.mcnamara@lancium.com>

To: Jon Cohen <jon.cohen@lancium.com>, David Henson <david.henson@lancium.com>, Raymond Cline <recline@lancium.com>, Eric Kutscha <eric.kutscha@lancium.com>, Ian Rock <ian.rock@lancium.com>, Lloyd Geisler <lloyd.geisler@lancium.com>, Prashant Gupta <munshiji@gmail.com>

Subject: Demo Day Script

Date: Sun, 26 Aug 2018 13:17:06 -0700

Please see below for my ideal demonstration day. Please give feedback and we can amend and get to Clemens / CDI etc.

SBI Walk Through on Demonstration Day

Lancium / Tier 44 Introduction / Conference Room (30 min)

- Overview of the Lancium system
 - o Tier44 and ServiceNow intro with emphasis on scalability and platform
- High level information on technical aspects of solution as it concerns S9's
 - o Bus system commands / shell scripts / BM Miner etc
 - o Functionality now and in the future
- Power Assure history and Tier44 origins
- Details on power ramping opportunity
 - o Potential market in data centers / corporates / resources management for other servers
 - o Opportunities and challenges

Network Operating Center Introduction / NOC (30 min)

- Represent three separate installations: Thomas Road, Project A, Project B
- Display map of TX on main NOC screens showing "geographic location" of all three projects
- Select Thomas Road
 - o Load chart of current power price
 - o Load chart of current available miners
 - o Load status of all miners (120 available /120 mining etc)
 - o Load historical (last 24 hours and last 30 days) of KPIs (power consumed, TH of hashing performed, power cost over time period, economic outcome)
- Select Project A (review same statistics)
- Trouble Ticket walk through (minor)
 - o E.g. miner at half hashing power -> soft reboot x4 -> if not fixed escalate to technician ticket
- Trouble Ticket walk through (major)
 - o E.g. fire detected -> drop all power -> drop louvers -> send HIGHEST PRIORITY technician ticket

Thomas Road Facility Walk Through (30 min)

- [We may have 10,000 SBI miners at this time so content subject to change]
- Tour of facility racks with emphasis on:
 - o Cooling and airflow
 - o Busway system
 - o Testing performed on heat tolerance of S9's
 - o Testing performed on ramping history/tolerance of S9's
- Tour of Demo Box with emphasis on:
 - o Cooling and airflow
 - o Fire suppression
 - o Cost
 - o Improvements to be made in Commercial boxes today and in future generations

Ramping Demonstration (the fireworks!) (30 min)

- Scripted: Walk to floor racks representing "Project A"
 - o Display iPhone or iPad that indicates power prices are spiking and they tick up to \$72/MWh, \$73/MWh etc
 - o When prices hit \$75/MWh all the racks drop power in real time and miners go to idle

| |
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| Bearbox v Lancium Trial Exhibit TX189 |
|--|

- Scripted: Walk to Demo Box representing "Project B"
 - o Display iPhone or iPad that shows that power production from Project B Wind Farm is dropping
 - o Turn off half the racks (maybe in a rack by rack cascade - other half of racks still running) in real time to represent dynamic ramping capability
- Scripted: Return to "Project A" racks
 - o Show power price down to \$50/MWh and miners ramping back up to full power

--

(917) 833-2720

From: Raymond Cline <recline@lancium.com>
To: "ian.rock" <ian.rock@lancium.com>, Stewart Hair <stewart@lancium.com>
Subject: Got it!
Date: Wed, 27 Jun 2018 22:26:54 -0500

I found that there is a monitoring script that looks every 20 seconds to see if bmminer and single-board-test (the components needed for mining) are running. If they are not, it restarts them. It then takes about 6 minutes after bmminer starts to return to hashing.

So, I thought it would be easy just to kill the monitorcg script, then kill bmminer and single-board-test. Easy enough, but then monitorcg restarts. It is established as a respawn task at system init. So, whenever it dies the OS restarts it.

However, the OS does not restart monitorcg when the system is in init 1 (single user mode). So, the answer is:

```
init 1
killall -9 bmminer
killall -9 single-board-test
```

Then when you want to bring it back to mining status:

```
init 5
```

monitorcg takes over from there...

So, we should be able to bring systems down to just the Linux board and fans. i will test this again and make sure it works.

Testing

Hmm, looks like all you really have to do is do init 1 and it brings down monitcg, bmminer, and single-board-test

Yep, confirmed: from root init 1 shuts down the mining and init 5 restarts it.

Cheers,
Ray

Raymond E. Cline Jr., PhD
Chief Mining Officer

| |
|--|
| Bearbox v Lancium Trial Exhibit TX190 |
|--|

From: Jon Cohen <jon.cohen@lancium.com>
To: Michael McNamara <michael.mcnamara@lancium.com>
Subject: Re: Other Thomas Investment
Date: Thu, 11 Oct 2018 21:39:13 -0500
Importance: Normal
Attachments: dashboard_content.pptx

Thats just from Eric. He wants some power monitoring stuff.
We should call that guy on Sherbino tomorrow to get some market color

here are some ideas for dashboard stuff. Just needs to be put into charts / tables

On Thu, Oct 11, 2018 at 10:25 PM Michael McNamara <michael.mcnamara@lancium.com> wrote:
Where did this come from???

On Thu, Oct 11, 2018 at 7:20 PM Jon Cohen <jon.cohen@lancium.com> wrote:
We still need to get a budget out of them.

----- Forwarded message -----

From: **Eric Kutscha** <eric.kutscha@lancium.com>
Date: Thu, Oct 11, 2018 at 6:35 PM
Subject: Other Thomas Investment
To: Jon Cohen <jon.cohen@lancium.com>, Rachel Arndt <rachel.arndt@lancium.com>
Cc: David Henson <david.henson@lancium.com>

We need to purchase and install stationary and portable power monitoring equipment.

Please reserve \$ 50 K

Thanks, Eric

--

Eric Kutscha
Lancium LLC
Mobile 262-385-4428

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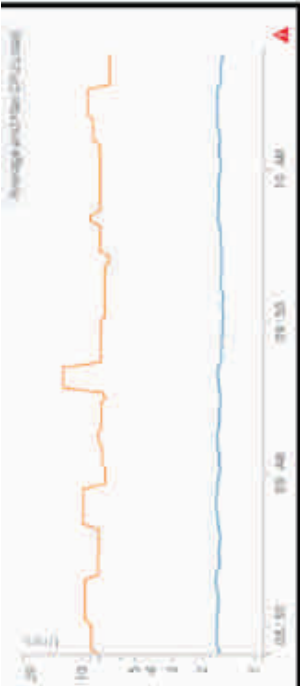
(917) 833-2720

| |
|---|
| Bearbox v Lancium Trial Exhibit TX222 |
|---|

Emergency Off Button
Alert Status (Red Green)



12.18 MW
70%



1.9 PH
65%

Monthly Statistics (charts)
Power Availability
Miner On-line %
Hash rate % of Max

Coin Price BTC BTC
Network Hashrate
S7 Breakeven Price
S9 Breakeven Price
Avalon Breakeven

ERCOT Operating Reserves
4CP Alert Status NA
Forecast Load
LMP (timestamp)
+5, +10, +15, etc

Weather Conditions (nearest weather station)
Temperature
Humidity
Wind Speed
Wind Direction

Miner Status
Operating within test parameters
Offline / Defective xxx / xxx (x%)
Above B/E Threshold xxx / xxx (x%)

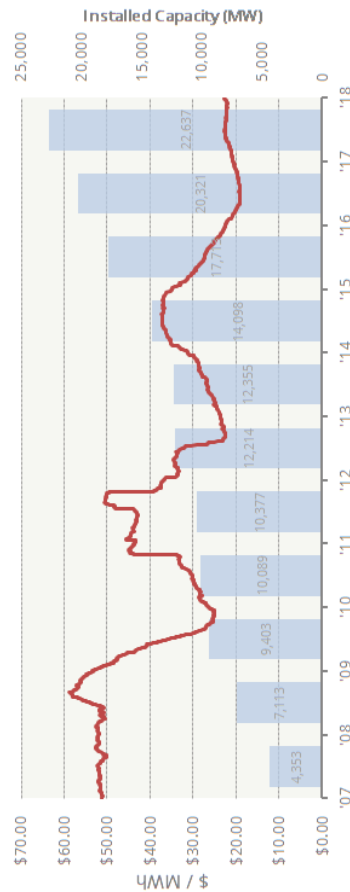
Beaurox v. Lantium
Trial Exhibit
TX223



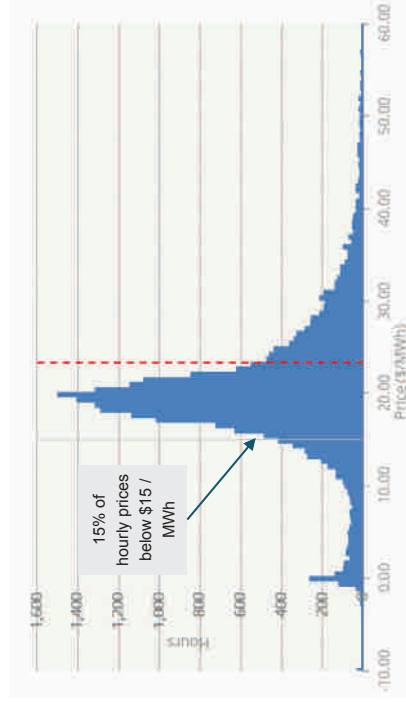
The Opportunity

WIND: LOW AND FALLING POWER PRICES

ERCOT WEST HUB ATC PRICE (USD / MWh)



DISTRIBUTION OF POWER PRICES



From 2015 to 2017, ~15% of hourly prices in ERCOT West were < \$15 / MWh; 2% were negative

Lancium allows generators to mitigate low-priced hours, while preserving exposure to high market prices during periods of scarcity



THE LANCIMUM FLEET

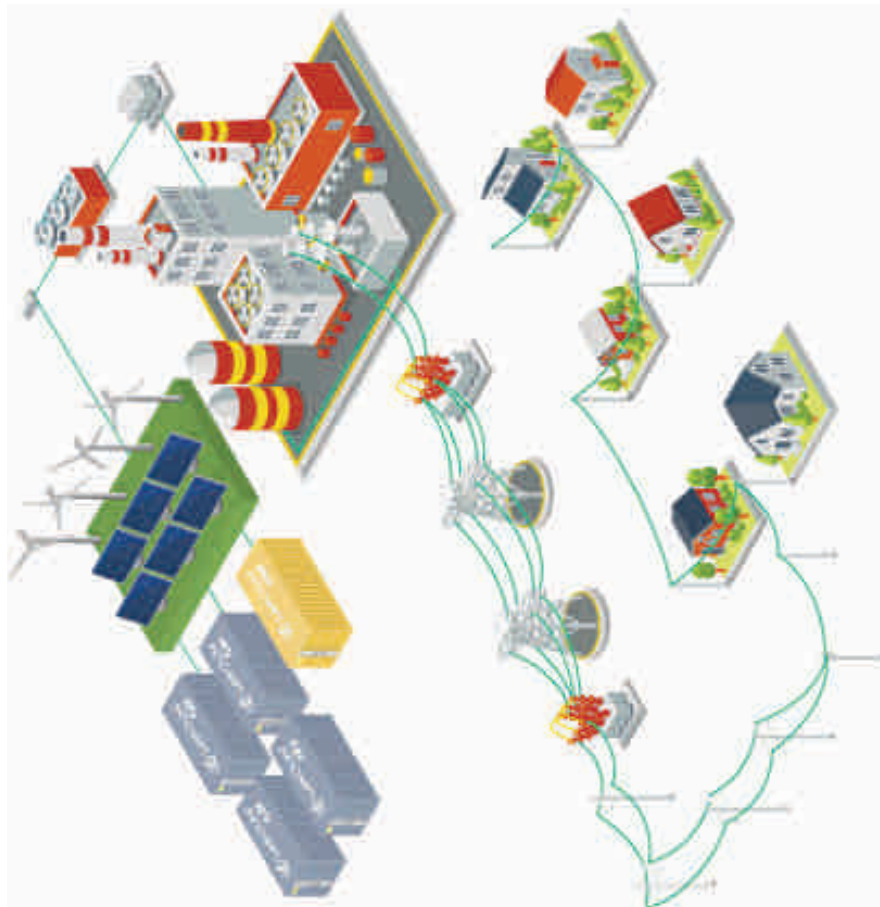
Flexible, modular,
mobile units deployed
throughout grid



Fleet can move and
grow/shrink as needed



Lancium will constantly
optimize Core/Flex
deployment dynamically



From: Raymond Cline <recline@lancium.com>
To: Tim Carter <tim.carter@mp2energy.com>
Cc: "ian.rock@lancium.com" <ian.rock@lancium.com>, "thomas.salvatore@lancium.com" <thomas.salvatore@lancium.com>, "vitor.henrique@lancium.com" <vitor.henrique@lancium.com>, MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: Re: Lancium (ADK_LD1) LR
Date: Wed, 28 Aug 2019 14:02:42 -0500
Inline-Images: image001.jpg; image002.png

Tim,

We are adjusting our economic curtailment plans to assure that we consume the obligated load we have been awarded. If we go below that level we will coordinate with the operations desk. We understand that we cannot received an award for power that could be curtailed, if we are not using the power.

I am sure that we will have more discussions as we move forward. All good clarifications so far.

Cheers,
Ray

Raymond E. Cline Jr., PhD
Chief Computing Officer

On Tue, Aug 27, 2019 at 3:16 PM Tim Carter <tim.carter@mp2energy.com> wrote:

Ray,

Following up on our call, any time you need to communicate with our asset desk, you can use the operations@mp2energy.com address. I would suggest using this if:

1. You have any abnormal operations issues (maintenance, for example),
2. You are looking for any information regarding grid conditions and/or events, and
3. If you have any plans of shutting down for economic purposes. What I would suggest is responding to Jacob's daily email regarding the awarded volumes with any intentions that you may have – whether known operational issues, 4CP shut downs and any likely real time energy strike prices. As I mentioned, participation in Load Resources is deemed a committed obligation once awarded in the day ahead market, but our team will do their best to accommodate your desired load flexibility. I DO NEED TO MAKE A CORRECTION to what I said on the call; any time your load does not meet it's obligation, the day ahead awarded value will show the impact in a reduced payment in your settlement statements. The value of the reduction will be what we covered on the call – the volumes multiplied by the clearing price. This is done on a 15 minute basis, however. So the hourly value we calculated on the call would be divided by 4 to give you the 15 minute impact.

Give me a call if there is anything that doesn't make sense here.

Bearbox v Lancium
Trial Exhibit
TX310

Tim Carter CEM, CDSM, CEP

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1061 | C 832.684.5645 | www.MP2Energy.com



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From: Raymond Cline <recline@lancium.com>

Sent: Tuesday, August 27, 2019 2:08 PM

To: Tim Carter <tim.carter@mp2energy.com>

Cc: ian.rock@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com

Subject: Re: Lancium (ADK_LD1) LR

Tim,

I sent a conference call invite for 2pm. Did you get it?

Cheers,

Ray

Raymond E. Cline Jr., PhD

Chief Computing Officer

On Tue, Aug 27, 2019 at 9:08 AM Tim Carter <tim.carter@mp2energy.com> wrote:

Absolutely. I'm available after 2 CDT pm today and available all morning tomorrow. Tell me what time works best for you and your team and I'll send a calendar invite with a conference number.

Tim Carter CEM, CDSM, CEP

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From: Raymond Cline <recline@lancium.com>

Sent: Tuesday, August 27, 2019 7:54 AM

To: Tim Carter <tim.carter@mp2energy.com>

Cc: ian.rock@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com

Subject: Re: Lancium (ADK_LD1) LR

Tim,

We are just trying to learn how best to take advantage of your service. Is it possible to set up a call so that we can understand the spreadsheet we are receiving and how best to use the information?

Cheers,

Ray

Raymond E. Cline Jr., PhD

Chief Computing Officer

On Mon, Aug 26, 2019 at 2:16 PM Tim Carter <tim.carter@mp2energy.com> wrote:

Hi Ray, my apologies for not responding sooner; I meant to respond Thursday that we were working up something for you guys but got tied up; and I was out of the office on Friday. However, it sounds like Jacob has already sent you what we worked up for you; let me know if you have any further

questions/concerns. I'll do my best to be more timely! (you can always call my cell phone with any problems).

Tim Carter CEM, CDSM, CEP

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From: Raymond Cline <recline@lancium.com>

Sent: Thursday, August 22, 2019 9:04 AM

To: MP2 Asset Operations Desk <operations@mp2energy.com>

Cc: ian.rock@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com; MP2 Demand Response List <dr@mp2energy.com>; MP2 Settlements <settlements@mp2energy.com>

Subject: Re: Lancium (ADK_LD1) LR

Thank you for the notice, it is great to be on board. For our own internal power management we need to know the value of our demand response adjustment as it changes. Is there a data feed or website where we can access the current value of the adjustment from demand response?

Cheers,

Ray

Raymond E. Cline Jr., PhD

Chief Computing Officer

On Thu, Aug 22, 2019 at 6:58 AM MP2 Asset Operations Desk <operations@mp2energy.com> wrote:

Good morning Lancium team,

You are all set up and have been offered into the LR program starting tomorrow (8/23/19). Listed below is our operations desk contact (24/7/365) in case you have any questions and/or need to opt out of the LR temporarily. Also, listed below are the notifications that you will receive via e-mail, phone call & text for an actual LR event and/or testing. Please let us know if you have any questions. Thanks!

operations@mp2energy.com

888-896-8629 – APX (24/7/365)

| Participant | First Name | Last Name | Email | Phone Number | Mobile Number | Text Msg Number |
|-------------|------------|-----------|--|--------------|---------------|-----------------|
| MP2-Lancium | Ian | Rock | ian.rock@lancium.com | 833-256-2486 | 713-839-5246 | 713-839-5246 |
| MP2-Lancium | Raymond | Cline | recline@lancium.com | 833-526-2486 | 713-560-6855 | 713-560-6855 |
| MP2-Lancium | Thomas | Salvatore | thomas.salvatore@lancium.com | 833-526-2486 | 541-918-1442 | 541-918-1442 |
| MP2-Lancium | Vitor | Henrique | vitor.henrique@lancium.com | | 832-815-9054 | 832-815-9054 |

LR Phone Curtailment

This is an EMERGENCY notification from MP2 Energy. Please listen carefully as mandatory action is required. At this time, ERCOT is requesting emergency mandatory LAAR curtailments. This LAAR curtailment is to be implemented immediately, and load should remain off until you receive the restore notification. Again this is an emergency event notification from MP2 Energy. Please take all steps necessary to respond to this mandatory event. For questions, please call 888-896-8640.

LR Phone Recall

This is an EMERGENCY notification from MP2 Energy. Please listen carefully as mandatory action is required. At this time, ERCOT is restoring emergency mandatory LAAR. This LAAR restoration is effective immediately; please restore according to protocol. Again this is an emergency event notification from MP2 Energy. Please take all steps necessary to respond to this mandatory event. For questions, please call 888-896-8640.

LR SMS Curtailment

MP2 Energy Alert: ERCOT is requesting mandatory LAAR curtailment at this time. Don't restore load until directed by MP2 Energy. Reply STOP to cancel SMS notifications.

LR SMS Recall

MP2 Energy Alert: ERCOT is restoring LAAR curtailment at this time. Restore load according to protocol. Reply STOP to cancel SMS notifications.

LR Email Curtailment

This is an EMERGENCY notification from MP2 Energy. Please read carefully as mandatory action is required. At this time, ERCOT is requesting emergency mandatory LAAR curtailments. This LAAR curtailment is to be implemented immediately, and load should remain off until you receive the reinstatement notification. Again this is an emergency event notification from MP2 Energy. Please take all steps necessary to respond to this mandatory event. For questions, please call 888-896-8640. Thank you.

LR Email Recall

This is an EMERGENCY notification from MP2 Energy. Please read carefully as mandatory action is required. At this time, ERCOT is restoring emergency mandatory LAAR. This LAAR restoration is effective immediately; please restore according to protocol. Again this is an emergency event notification from MP2 Energy. Please take all steps necessary to respond to this mandatory event. For questions, please call 888-896-8640.

Thanks,

Jacob Magin

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From: Sarah Ho <sarah.ho@readyengineering.com>

To: Eric Kutscha <eric.kutscha@lancium.com>, "ian.rock@lancium.com" <ian.rock@lancium.com>, Raymond Cline <recline@lancium.com>

CC: Jordie Holton <jordie.holton@readyengineering.com>, Brian Carpenter <brian.carpenter@readyengineering.com>, Tyler Bennett <tyler.bennett@readyengineering.com>

Subject: Updated Control Narrative

Date: Thu, 2 May 2019 15:54:19 +0000


Attachments: Lancium_Control_Narrative_-_Draft_2019-05-01.pdf

Inline-Images: image001.png; image002.png; image003.png

Hi everyone,

As per our discussions yesterday, please find attached the updated control narrative for your further review.

Kind regards,
Sarah

Sarah Ho, P.Eng. | Manager, Buildings & Development
 t. 780.960.6663 x141
c. 780.885.5546
📍 [Spruce Grove, AB](#)

Bearbox v Lancium
Trial Exhibit
TX320

DRAFT

5.3 Load Management

Lancium Data Centers are located in close proximity to a power provider and the contractual terms for purchase and utilization of power require Lancium to manage power utilization (load) of the data center. This is called “ramping of power consumption” and typically follows the daily/hourly plan coordinated with the power provider.

5.3.1 Load Management – Lancium

Lancium can manage load utilization at a distributed computing site using the following methods:

A. Soft Load Control (Software Instruction)

- a. The Lancium NOC may use software instructions to adjust computational activity for each computing rack across the site thereby managing total electrical load utilization to desired or permissible levels.
- b. Lancium’s implementation of Soft Load Control allows computing racks to be adjusted down to an idle state to minimize power utilization while leaving computing equipment in an online state and receptive to later instruction.

B. Hard Load Control (Module Supply Main Breaker Action)

- a. The Lancium NOC, or a local Lancium Operator/Technician, can open/close the module supply main breakers. Each module has two supply main breakers that can be controlled individually.
- b. Opening a main breaker causes de-energization of associated computing racks and exhaust fans, decreasing overall site load utilization. Closing a main breaker allows for energization of associated computing racks and exhaust fans, increasing overall site load utilization.
 - Note that Site UPS power is provided through an auxiliary circuit breaker to critical module-level devices (e.g. network switches, I/O Aggregator etc.) even when the module supply main breakers are open.
 - The computing load is not powered by the Site UPS.

Soft Load Control is preferred over Hard Load Control for load reduction. Hard Load Control is used as a backup, to trigger opening of breakers when Soft Load Control mechanisms fail to (or cannot) keep load utilization below defined limits (within defined time and magnitude thresholds).

5.3.2 Load Management Coordination – Power Provider

The power provider can direct or coordinate electrical load utilization at the Lancium site using the following methods:

A. Site Supply Main Breaker

- a. The power provider has the capability to control the site supply main breaker and quickly shed all load utilized by the site.
- b. This option is only to be used without warning when the power provider has an emergency requiring fast load shed to stabilize or protect generation assets.

B. Person to Person Communication (telephone, email etc.)

- a. The power provider can communicate directly with personnel at the Lancium NOC who in turn can implement Soft Load Control mechanisms (see section 5.3.2) to manage

DRAFT

processing activity levels for computing racks across the Lancium site in order to adjust electrical load utilization to required levels. This communication may take the form of a coordinated daily/hourly plan.

C. Communicated Control Signals

- a. The power provider can update control system signals which are passed via secure communications link, received by the Lancium Brain and evaluated to trigger automated actions to manage site load (e.g. Soft Load Control and Hard Load Control, see section 5.3.1).

5.3.3 Automated Load Management – Communications Link

To Be Determined:

What will be the physical infrastructure and communications protocol used to communicate the Load Limit Setpoint to Lancium's system for managing computational activity for the computing racks?

5.3.4 Automated Load Management – Communicated Signals

This section describes one potential implementation of coordinated and automated load management. The actual architecture and implementation of the communication link and communicated signals is to be coordinated with the relevant power provider for each Lancium data center.

To support automated and coordinated load management scenarios the power provider provides to the power consuming site (Lancium), via secure communications link, three (3) primary control signals¹. These signals are described in Table 4-1 below.

Table 4-1: Signals from Power Provider to Lancium Site

| Name | Description |
|-------------------------------------|--|
| Load Limit Setpoint | This integer value, determined by the power provider, represents the maximum allowable electrical load, that may be utilized by the site. |
| Load Limit Compliance Period | This integer value, determined by the power provider, represents the allowable time duration, after the time when Load Limit Setpoint has been reduced, for the site to reduce load utilization below the new Load Limit Setpoint value. >= 0: Tolerance thresholds enabled < 0: Tolerance thresholds disabled |
| Metered Load | Real-time site load utilization as metered by the power provider. |

¹ Other signals such as watchdog bits may also be used to validate the integrity of the communications link.

DRAFT

5.3.5 Automated Load Management – Automated Response

The Lancium Brain monitors the value of the Load Limit Setpoint and the Load Limit Compliance Period as communicated from the power provider.

The Load Limit Setpoint value is evaluated and used in determination and initiation of Soft Load Control mechanisms that are used to maintain load at or below the Load Limit Setpoint by managing computational activity (and power usage) for module computing racks in order to manage total power utilization across the site.

The Lancium Brain maintains an Internal Load Limit variable that is used to determine when and if Hard Load Control action is to be initiated. Hard Load Control action is triggered only when site load is greater than the Internal Load Limit A) by more than a configurable threshold value (e.g. 2 MW), or B) for longer than the configurable threshold duration (e.g. 2 minutes). This allows site load to momentarily spike above the load limit (within reasonable limits), without triggering breaker action.

In general (steady state), the Internal Load Limit value is set equal to the communicated Load Limit Setpoint value. However, when the communicated Load Limit Setpoint value is reduced, and the communicated Load Limit Compliance Period value is greater than zero, then the Internal Load limit is maintained at its previous value until the compliance period has elapsed (from the time when the load limit was reduced), after that it is again set equal to the communicated Load Limit Setpoint value.

- **Load Limit Compliance Period ≥ 0 :**

When the site load is greater than the Internal Load Limit value and the compliance period is zero or greater (positive) then Hard Load Control action is triggered only when site load is greater than the Internal Load Limit value and the extends beyond the duration or magnitude thresholds described above.

- **Load Limit Compliance Period < 0 :**

A negative Load Limit Compliance period can be used by the power provider when a load reduction is to occur as fast as possible (e.g. islanding of generation assets).

When the site load is greater than the Internal Load Limit value and the compliance period is less than zero (negative), then Hard Load Control action is triggered immediately when site load is detected as greater than the Internal Load Limit value.

5.3.5.1 Automated Response – Module Supply Main Breakers

When the Lancium Brain determines that Hard Load Control actions are required it evaluates the total site load against its internal Load Limit Setpoint and controls the module supply main breakers per the following description:

- Power meter readings from each module are used to determine which module main breakers are to be opened such that overall site load will be reduced below the load limit. Control signals are passed from the Lancium Brain to the specified modules, causing specified breakers to open.

The Lancium Brain may be configured to implement prioritization of certain modules over others.

| Phase 2_Luncum.xlsx | | | | | | | | | |
|-------------------------|---|------------------------|-------------------------|-------------------------------|----------|---|--|--|---|
| Open with Google Sheets | | | | | | | | | |
| Phase II Timeline: | | | | | | | | | |
| | A | B | C | D | E | F | | | |
| Item | Task | Start Date | Finish Date | Responsible | Comments | | | | |
| 1 | Tier44 to integrate its automation platform into the mining environment to replace shell scripts with a broad-based mechanism for system capabilities. | 11/1/2018 | 12/31/2018 | Tier44, Trestle/Camacho/Price | | | | | |
| 2 | Tier44 to work with CDI on automating the setup and provisioning of new hardware. | 11/1/2018 | 12/31/2018 | CDI, Bloop/Tier44, Camacho | | | | | |
| 3 | Tier44 to integrate with wind farms and pricing data feeds as required during this period. Information needed about wind farms: a. Availability b. Price | 11/1/2018 11/1/2018 | 12/31/2018 1/31/2019 | Tier44/Lancum Lancum/Hub | | | | | |
| 4 | Tier44 to implement power price/availability based adjustments of mining capacity. a. Higher price -> only run 50 b. Lower price -> add 50 | 11/1/2018 | 12/31/2018 | Tier44, Trestle/Camacho/Price | | | | | |
| 5 | Design and implement an emergency shutdown. | 8/31/2018 | 12/31/2018 | Tier44 | | | | | Website on local appliances and not through Service Now |

From: "Sims, Trey" <tsims@tas.com>

To: ian.rock <ian.rock@lancium.com>, "David Henson (david.henson@lancium.com)" <david.henson@lancium.com>

CC: "Sims, Trey" <tsims@tas.com>

Subject: RE: 1803343 Lancium Data Box - Design Basis

Date: Fri, 11 May 2018 16:28:21 +0000

Attachments: Lancium_Data_Box_-_Design_Basis_20180511_R3.2.docx; Lancium_Data_Box_-_Schedule_05.10.18.pdf

David / Ian – good meetings yesterday. It felt like that the meeting today would be the critical discussions - TAS wishes you the best.

Leaning forward, TAS would like to invite ourselves to your shop mid-next week. The objective of the meeting is to finalize all outstanding scope details on the 4 x 1.6MW Data Box solution. This would allow TAS to provide a firm proposal to Lancium by 5/21 and keep the development units on schedule to deliver by 7/31. Would next Wednesday afternoon or Thursday morning work?

See attached current project design guide. I pulled the current Lancium questions from design guide and listed them below. I have also attached a high-level schedule that we are currently working towards. This should match the same timeline and production capacity that we have discussed this week.

Lancium Questions

1. Confirm scope split
2. Miner shelves supplied by Lancium or TAS?
3. Miner SCADA footprint, conduit and cable requirements
4. Miner relative humidity envelope
5. Plan for electrical distribution from Distribution Panel Boards all the way to the Miner Power Supply.
6. Confirm fire system media – CO2 vs misting system.

Thank you,

Trey Sims

tsims@tas.com

cell 281.229.4469

From: ian.rock <ian.rock@lancium.com>

Sent: Friday, May 11, 2018 6:57 AM

To: Sims, Trey <tsims@tas.com>

Subject: Re: 1803343 Lancium Data Box - Design Basis

Trey, i am generally good.

We can discuss the stairs and have to consider the cable management depending on the solution.

Ian

Ian J Rock

Operations Manager
Lancium

| |
|--|
| Bearbox v Lancium Trial Exhibit TX371 |
|--|

Thanks very much, Ellen.

Jesus,

Very nice to e-meet. Maybe we could hop on a call tomorrow to discuss?

Sent from my iPhone

On Nov 16, 2017, at 3:55 PM, Ellen Wolfe <ewolfe@resero.com> wrote:

Jesus and Michael,

I'd like to take the liberty of introducing you both.

Jesus: Michael is with an up and coming firm, Lancium. He and his partners are developing deployable/dispatchable load products that both take advantage of negative prices and can be demand response resources and curtail under negative pricing. Carrie and I did a CAISO energy market seminar for them a week or so back. They are investigating lots of options and your name came up. You may be useful to them with connections at the capital, and also Carrie said you've been doing a lot of work in Hawaii and they would like to explore that market.

Michael: Jesus has a small consulting/advocacy firm, and we partner with one another regularly. He's been in the industry but also is very connected in the legislative/political circles.

Might you both exchange info and consider whether you might want to have a phone call to see if Jesus' talents may be of benefit to you?

Thanks!
Ellen

Ellen Wolfe
Resero
916 791-4533
ewolfe@resero.com
www.resero.com

<LANCIUM TECHNOLOGIES INC AND ADVANTAGE GOVERNMENT CONSULTING LLC NDA 11 28 2017.pdf>

From: Michael McNamara <michael.mcnamara@lancium.com>

To: David Henson <david.henson@lancium.com>, Prashant Gupta
<prashant.gupta@lancium.com>, Steve Pattyn <steve.pattyn@lancium.com>

Subject: Deck

Date: Wed, 27 Dec 2017 17:10:33 -0500

Attachments: Lancium_Investor_Deck_Q118_v1.pptx

Just playing with the deck.

See new place holders and content that I am thinking about. Feedback welcome

--

(917) 833-2720

| |
|--|
| Bearbox v Lancium Trial Exhibit TX373 |
|--|



Bearbox v. Lancium
Trial Exhibit
TX374

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LANCIUM000025166



OPPORTUNITY

EXECUTIVE SUMMARY

Lancium is solving two of today's most prominent problems in emerging technology

2



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Exploding demand for electricity from cryptocurrency mining

Proof-of-Work blockchain currencies require a tremendous and growing amount of energy



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Excess and wasted renewable energy

Exponential renewable energy growth and wasted petrochemical energy is causing grid instability and environmental destruction

LANCIUM00025168

4



**CREATING a datacenter solution
that can uniquely capitalize on
both of these growing PROBLEMS**

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LANCIUM000025169



EXECUTIVE SUMMARY

COMMERCIAL PLAN

5



Lancium is currently raising US\$10mm+ to fund commercial roll out



Ability to place up to []MW of “high spec” boxes by Q2 2018 with pipeline of 100MW+



Lancium has assembled an executive team with extensive experience in cryptocurrencies, industrial/power, enterprise software and corporate finance



Appx11772

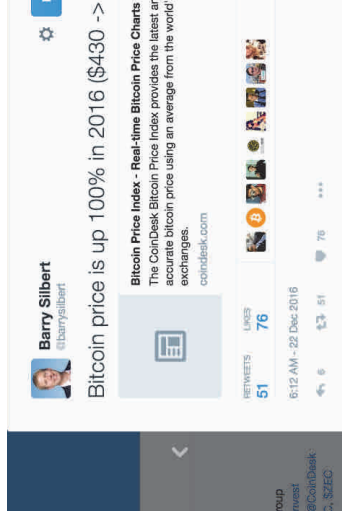
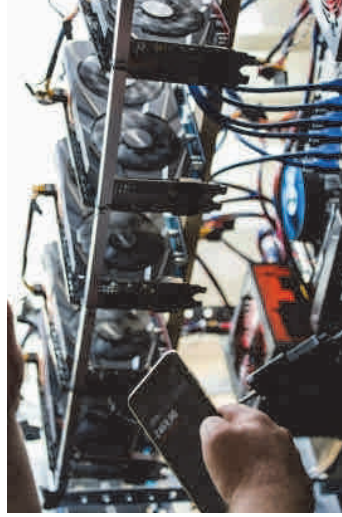
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6

Bitcoin Energy Consumption: In the News



28

THE RIDICULOUS AMOUNT
OF ENERGY IT TAKES TO
RUN BITCOIN

SEPTEMBER
2017

[Click to Read Article](#)

01

One Bitcoin Transaction
Now Uses as Much Energy
as Your House in a Week

NOVEMBER
2017

[Click to Read Article](#)

01

Bitcoins Energy Consumption
An Unsustainable Protocol
That Must Evolve?

NOVEMBER
2016

[Click to Read Article](#)

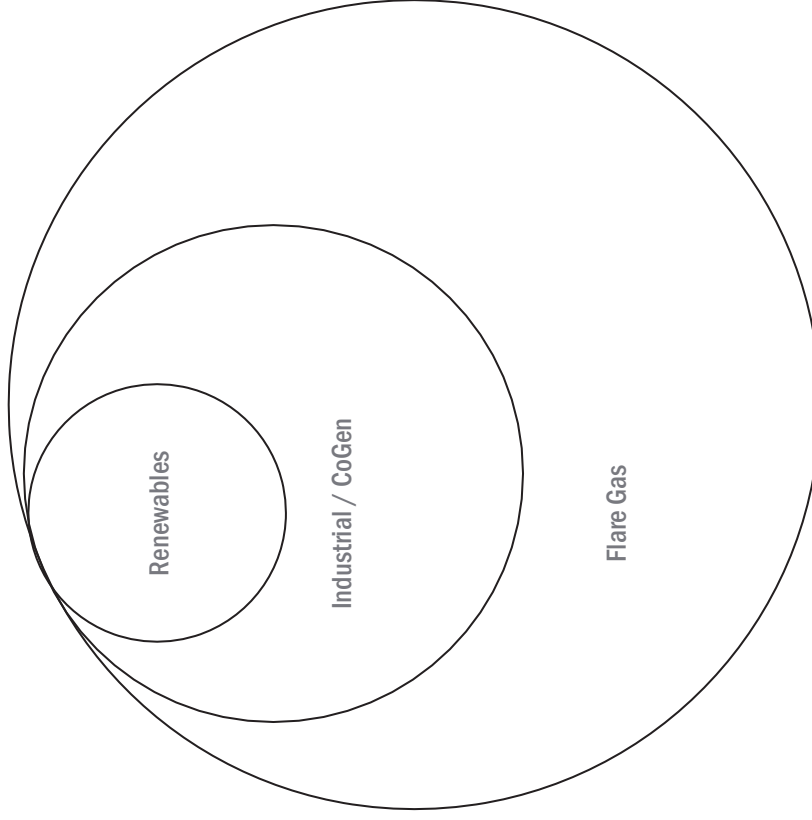
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LANCIUM00025171

Solution: Capturing Wasted Energy

Oceans of Wasted Power

- Renewable Power
 - □
 - □
- Industrial / CoGen
 - □
 - □
- Flare Gas / Vented Methane
 - □
 - □



Appx11774

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LANCIUM00025172



The Opportunity

Renewable Power Glut

Renewable energy growth is exploding and growing faster than anticipated

This growth is causing serious issues including:

- Negative power prices
- Volatility attributed to curtailment, congestion and load response requirements

This power is effectively stranded and actually has a strong negative impact on the availability and stability of the power grid

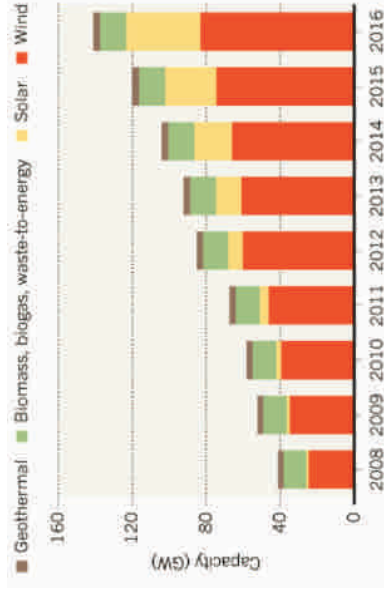
There is limited industrial user for this power due to its volatility and scale, its distributed nature and forecast/technology development challenges

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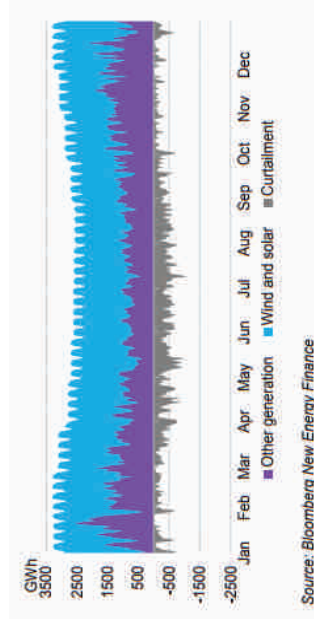
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8

RENEWABLE ENERGY GROWING EXPONENTIALLY



SO ARE POWER CURTAILMENTS





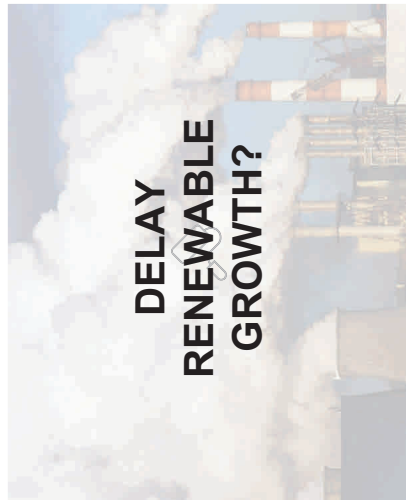
9

RENEWABLE: POSSIBLE SOLUTIONS



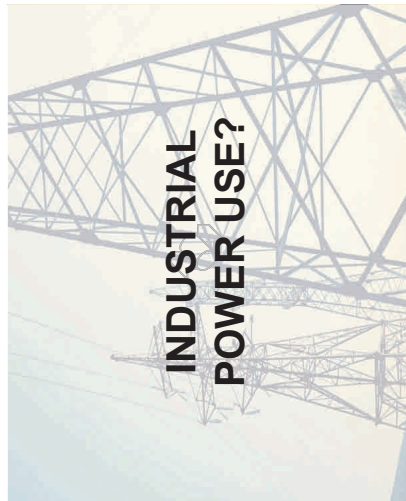
BATTERIES?

- Not Economically Feasible
- Earliest Scale Deployment
5+ Years Out



DELAY RENEWABLE GROWTH?

- Environmentally Desstructive
- Politically Impossible
- Economically Foolish



INDUSTRIAL POWER USE?

- Industrial Users Cannot
Absorb and Drop Very Large
Loads Quickly

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LANCIUM000025174

Solution: Capturing Wasted Energy

Industrial and CoGen

- 6,000MW+ of installed CoGen in the US alone
 - □
 - □
- Excess power is largely ignored by producers and sometimes sold into very weak pools
 - □
 - □
- Potential to sit “behind the fence”
 - □
 - □



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LANCIUM00025175

Solution: Capturing Wasted Energy

Flare Gas and Vented Methane

- Total flare gas in the US of []mcf/d
 - []
 - []
- Environmentally destructive and wasteful
 - []
 - []
- Shale wells drilled for liquids alone with nat gas as a wasted by product
 - []
 - []



Appx11778

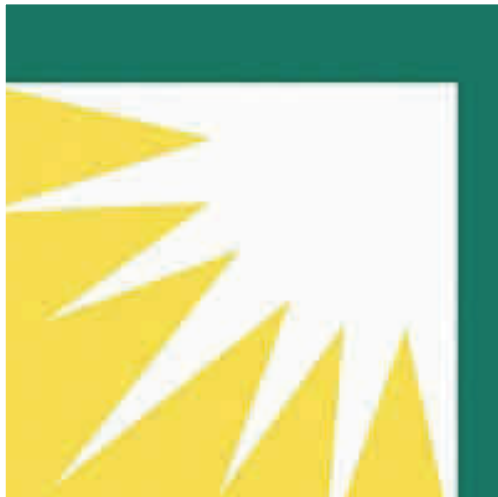
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LANCIUM00025176



POTENTIAL CUSTOMERS

POTENTIAL REVENUE STREAMS



UTILITIES

Value Proposition:

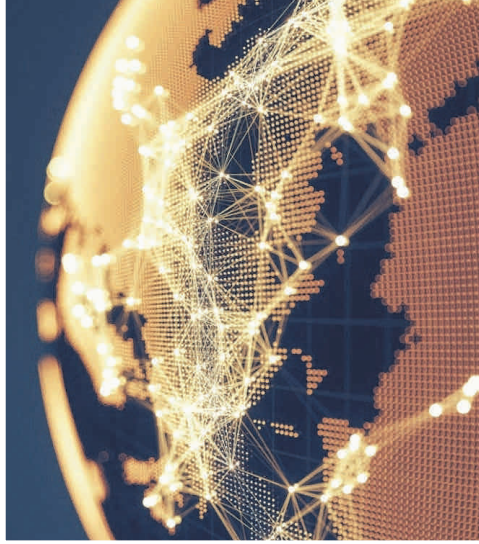
Consumer prices are rising despite low power prices due to volatility and inefficiency.

Lancium will sell, install and service a fleet of units to provide price stability and cost savings.



POTENTIAL CUSTOMERS

POTENTIAL REVENUE STREAMS



GRID

Value Proposition:

Power grids are suffering from selective excessive power & heavy ramping needs causing instability and volatility.

Lancium will sell, install and service a fleet of units to provide price stability and cost savings.



POTENTIAL CUSTOMERS

POTENTIAL REVENUE STREAMS



INDEPENDENT POWER PRODUCERS

Value Proposition:

Power producers are forced to curtail production or sell power at negative prices at certain times.

Lancium will provide power producers a “put” and receive free or nearly free power in exchange.



POTENTIAL CUSTOMERS

POTENTIAL REVENUE STREAMS

INDUSTRIAL POWER

Value Proposition:

Capture power that would otherwise be sold into an adverse market

Lancium will located units (behind the fence) to []



11

POTENTIAL CUSTOMERS

POTENTIAL REVENUE STREAMS

E&P COMPANIES

Value Proposition:

Lancium will provide a methane capture system that will prevent flaring / venting and use natural gas to power []

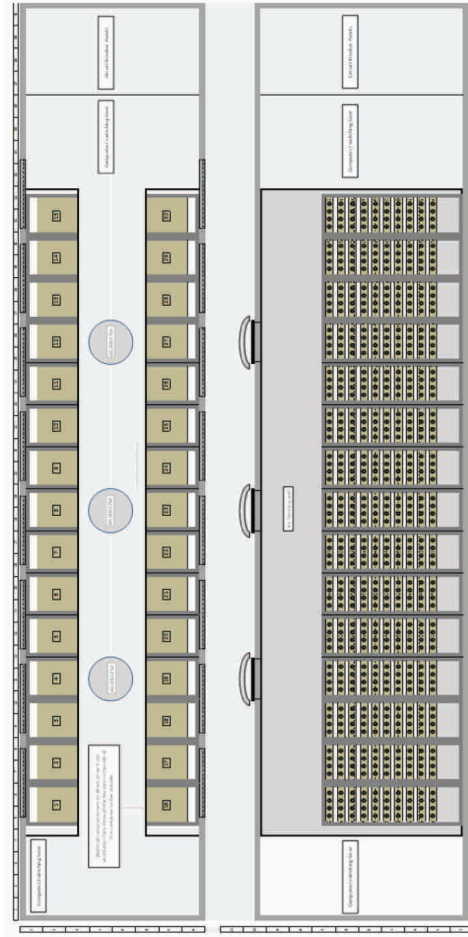
[]



The Opportunity

THE LANCIMUM FLEX SOLUTION

- Small footprint units that can absorb or drop load nearly instantly
- Internally designed with multiple patent pending elements
- Fully mobile, modular and stackable to provide nearly instant solutions for any grid stability issues



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LANCIUM000025182

The Lancium Fleet

“High Spec” Box

■ □ ■ □
■ □ ■ □
■ □ ■ □

“Low Spec” Box

■ □ ■ □
■ □ ■ □
■ □ ■ □

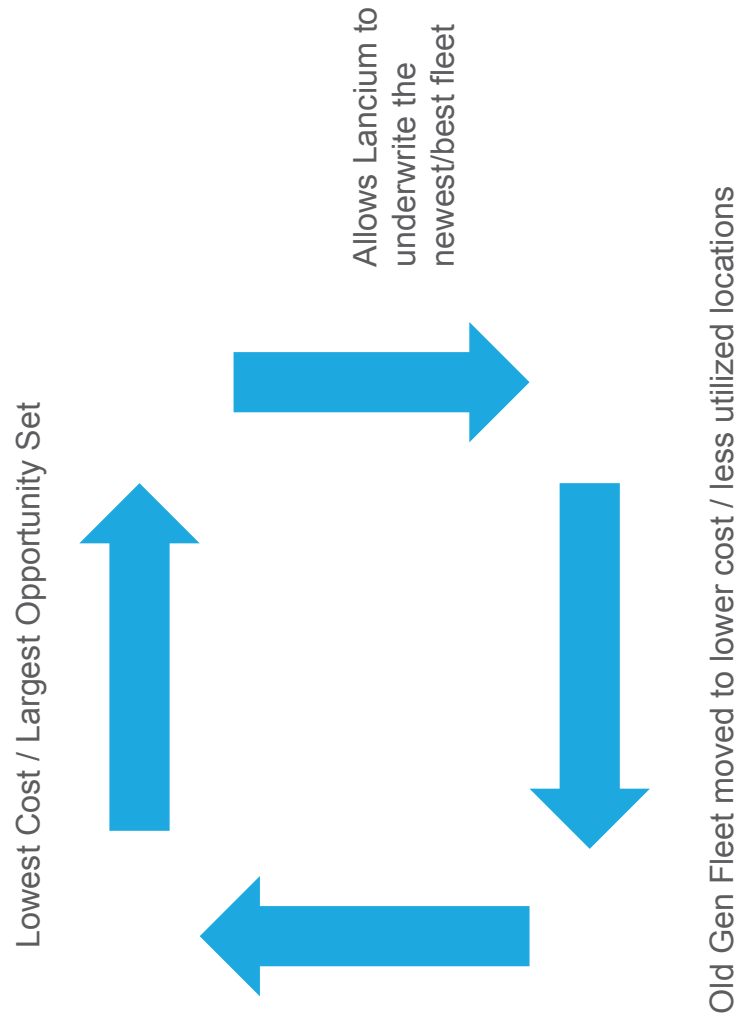
Appx11785

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LANCIUM000025183

The Lancium Fleet

Virtuous Cycle



Appx11786

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LANCIUM000025184

Business Model Considerations

Build/Own/Operate

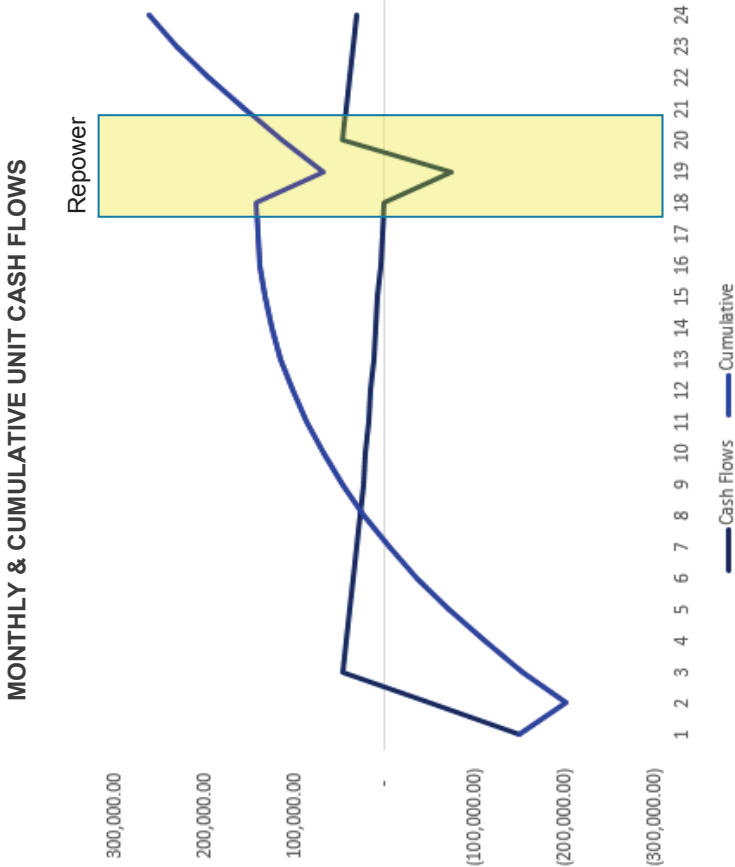
Lease/Royalty Model



ECONOMIC CONSIDERATIONS

THE LANCUM FLEX SOLUTION

- Initial units will use older generation rigs (older gen rigs are more power consumptive)
- Unit cost of <\$200k with illustrative IRR's of 50%+ (at \$7,500/BTC and \$0.025/KwH)
- If BTC prices drop drastically, hardware replaced to capitalize on rig price drop
- May be deployed "behind the meter" without incurring Transmission and Distribution Charges
- Units will need to be "repowered" with new mining equipment every 18 months
- Ample opportunity to optimize by changing fleet configurations





12

TIMELINE



Q4 2017

- File First Patents
- Build First Units & Optimize Design
- Raise \$1-2mm



Q1 2018



- Deploy 1st units at IPPs (solar & wind)
- Join CA Independent System Operator as “participating load”
- Key Strategic Hires

Q2/Q3 2018



- Expand geographical footprint (Europe)
- LOI or MOU w/ Major Utilities.
- Raise Institutional Capital & Enter into Lending Relationships.

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LANCIUM00025187



CEO & CO-FOUNDER

MICHAEL MCNAMARA, CFA

Michael is a private investor and is currently on the board or serving as advisor to a number of start-up firms in the consumer, energy and technology space. Previously, Michael co-founded ROR Capital, a merchant bank focused on natural resources. Over several years, ROR partnered with leading Private Equity firms to successfully restructure a number of multi-billion dollar natural resource companies.

Michael spent 10 years on Wall Street at several multi-billion hedge funds focused on natural resource and event-driven investments ultimately part of teams overseeing \$1bn+ of investments in the space. Michael began his career at PriceWaterhouseCoopers with roles in the consulting and accounting divisions. Michael graduated Magna Cum Laude from Georgetown University with degrees in Accounting and Finance and is a member of the New York Society of Security Analysts and the CFA Institute.

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LANCIUM00025188



CO-FOUNDER

PRASHANT GUPTA, CFA, CPA (INACTIVE)

Prashant is an active private investor across multiple industries and geographies. Mr. Gupta most recently served as the Chief Financial Officer of Forbes 400 family office with significant portfolio of investments in hedge funds, real estate and gaming. Prashant oversaw all aspects of the family office's investment financing, structuring, accounting, audit, taxation and estate planning.

Prior to that, Prashant was a Senior Manager with Ernst & Young LLP, where he spent six years specializing in hedge funds, mutual funds and broker-dealers, two of which were spent in an offshore jurisdiction. Prashant received an M.S. degree in Accounting from the University of Virginia and a B.A., summa cum laude, in Economics and Accounting from Muskingum University. Prashant has been awarded an honorary Doctorate in Humane Letters by Muskingum University recognizing his distinguished career and achievements.

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LANCIUM00025189



15

CHIEF FINANCIAL OFFICER

SR.FINANCIAL EXECUTIVE (PENDING)

Senior capital markets professional with more than 18 years of progressive experience including equity research and investing, investor relations advisory, corporate finance, and strategy consulting. Twice awarded Institutional Investor's best of the buy-side and recognized by peers and executives for insight and candor. Proven success as a buy-side investor, corporate advisor, and business developer with an extensive network of investors, research analysts, investment bankers, and corporate executives. Seasoned in counseling board of directors and C-level executives.

Currently Managing Director at a global consulting firm in the Corporate Finance and Strategic Communications segments where he has advised numerous Fortune 500 companies around key strategic initiatives including spin outs, acquisitions, capital allocation policies and IPO's.

B.A in finance from North Park University in Chicago, and earned Master's in business and administration from the Johnson School at Cornell University as well as the Smith School of Business at Queens University

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LANCIUM00025190



CHIEF TECHNICAL OFFICER

DR. DAVID J. HENSON Ph.D., BCHE

Dr. Henson recently served as the Chief Executive Officer of Siemens Conceptual Engineering Services. He served as the Director of Emerging Technology for Siemens Oil & Gas Division with responsibility for developing and deploying Siemens based businesses & Siemens Oil & Gas provide field-proven compressors, gas and steam turbines, electric drives, motors and associated control and data systems. Siemens O&G division has approximately 16,000 employees worldwide.

Dr. Henson has more than 15 years experience in process engineering, project management, business development and commercial experience with international companies in both client and contractor roles. He has been an Executive Director at LWP Technologies Limited since January 2016. He has been the Project Director for Dominions Cove Point LNG while at IHI E&C Dr. Henson holds a PhD in chemical engineering.

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17

CHIEF MINING OFFICER

DR. RAYMOND CLINE Ph.D

Dr. Cline is currently responsible for Lancium's cryptocurrency strategy and initiatives. Dr. Cline serves as a member of the IEEE Blockchain Initiative Steering Committee and is President/CEO of RWI Mining, LLC, a Blockchain mining firm.

He has participated in the development of a broad range of technologies, including high performance computing and communications technology, distance computing, collaborative computing, parallel processing, distributed computing, distributed object computing, distributed multimedia, networking protocols, and Asynchronous Transfer Mode (ATM) networking. He has applied these technologies to the development of systems to address needs in the petroleum, national security, manufacturing, and medical industries, with a specialization in recent years toward digital energy solutions (the application of dynamic, network centric operational models in the energy space).

Dr. Cline serves on the board of HARC, a research hub providing independent analysis on energy, air, and water issues to people seeking scientific answers; is a Fellow of the Borders, Trade, and Immigration Institute, a DHS Center of Excellence; and is a technical advisor to Advanced Green Computing Machines. Dr. Cline had previously led the Department of Energy funded Smart Grid Education and Training Coalition; was a member of the Executive Committee of TMAC, the Texas affiliate of the Manufacturing Extension Partnership (MEP) program of National Institute of Standards and Technology (NIST); served on the board of the Global Energy Safety Institute; and served as the Chairperson of the Cluster Development Committee of the Greater Houston Partnership Energy Collaborative.

Dr. Cline earned a PhD in Chemical Physics from the University of Illinois and a BS in Chemistry from Kent State University.

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LANCIUM00025192



STRATEGIC ADVISOR

BRUCE RISING

Bruce Rising is formerly Strategic Business Manager within Siemens Power Systems Sales. Previously, Bruce was manager of Marketing Intelligence in Siemens' Global Strategy group. Before joining Global Strategy, he was the manager of Regulatory Affairs for Siemens Energy where he assisted the Gas Turbine Association in Washington DC as the chairman of the Environmental Affairs Committee for six years. During that time he represented the gas turbine industry on the Natural Gas Council Committee on Gas Interchangeability related to imported LNG, and the effort to delist gas turbines from the MACT ruling. He was a key author in a study requested by the Secretary of Energy to review the impact of unconventional energy supplies on the power sector.

Bruce's experience encompasses 30+ years in combustion, environmental control technology, and gas turbine technology issues. Prior to joining Siemens he was the manager of Emissions and Control Technology for RollsRoyce Allison in Indianapolis, and research scientist in Energy and Environmental R&D at Battelle Columbus Labs. He earned a BS in Chemical Physics and an MS in Fuel Science from Penn State. He is a member of the American Society of Mechanical Engineers, the Association for the Advancement of Science, the American Chemical Society and National Association of Corrosion Engineers. He holds seven patents related to energy production, emissions controls and engine diagnostics.

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LANCIUM00025193



STRATEGIC ADVISOR & INVESTOR

STEWART HAIR

Stewart has 3 years of Crypto Currency mining experience guiding the build-out of over 6 megawatts infrastructure at multiple locations and installing 1,000s of miners producing greater than \$20 million in value for the stakeholders. Stewart is a retired IT Infrastructure and Communications Services industry executive with 20 years of leadership and operational experience at HP, EDS, MCI Systemhouse, Telesat and most recently at M&A Technology as VP of Operations. Prior to joining the IT and Communications industry, Stewart gained extensive business experience in the manufacturing industry, overseeing day-to-day financial management while driving the exploitation of new technologies to improve corporate efficiency and profitability. In Canada where Stewart grew up after his parents emigrated from Scotland he achieved a professional accounting designation from the Canadian Society of Management Accounts and later as part of his role in the Satellite Communications Stewart received Top Secret clearance from the Canadian Federal Security authority. Stewart currently living in Texas and enjoying success as an entrepreneur helping to finance and guide start-up companies and development projects in value creation for their stakeholders.

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LANCIUM00025194

From: Jay Young <Jyoung@strategicpowersolutions.net>

To: Jon Cohen <jon.cohen@lancium.com>, Michael McNamara
<michael.mcnamara@lancium.com>

CC: Todd Wilson <todd.wilson@calpinesolutions.com>

Subject: LR DEMAND RESPONSE PRESENTATION 2019.pptx

Date: Sat, 18 May 2019 14:35:09 +0000

Attachments: LR_DEMAND_RESPONSE_PRESENTATION_2019.pptx

Jon and Michael –

Attached is the information we discussed on Thursday for the DR programs in ERCOT. This covers all of the high level details. We will need to do a site and software assessment to see what is needed for telemetry, communication, etc.

CPower mentioned that the quickest they have enrolled a new participant was 35 days. So if we want to take advantage of historically high summer revenues, we need to get on this next week.

I used to work for CPower and continue to do business with them. They have a great team and are one of the largest QSE's in the nation.

Please let me know if you have any questions.

Thank you,

Jay A. Young
President
Strategic Power Solutions
214-415-5462

Bearbox v Lancium
Trial Exhibit
TX437

Appx11797

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LANCIUM00026299

ERCOT: LOAD RESOURCE(LR)

Generates the most Revenue

- Bid-In Day Ahead Program
- Involves additional automation
- Instantaneous Curtailment
- Can opt out as needed
 - Provides Flexibility with concern to UFR and critical production schedules.
- Provides Real-time Pricing



10

Participation: LR Program

Load Resource:

Minimum Size – 100 kW

Participation– Year Round, 24 hours per day

Enrollment– No deadline, Must be registered as a Resource with ERCOT.

Metering/Direct Load Control (DLC) – 2 second demand data, under-frequency relay. Must have Direct Load Control (DLC)

Testing– At a minimum, a 30-45 minute test event will be called once per year absent successful event deployment


11


Participation: LR PROGRAM CONT.

Notification - Customers will be notified of an event via email, phone, text and/or electronic signal

Dispatch Types - Verbal Dispatch or UFR Event
(Immediate curtailment via Under Frequency Relay (UFR) upon system frequency reaching 59.7 Hz for 20 cycles)

Settlements - Customers receive monthly payments within 30 days of the end of the month

Events - Since 2011 - 14 Total Events 4 Manual/10 UF Events



12

From: Michael McNamara <michael.mcnamara@lancium.com>

To: Jon Cohen <jon.cohen@lancium.com>

Subject: BAML deck

Date: Thu, 29 Mar 2018 14:52:02 -0400

Attachments: Lancium_-_BAML_April_10th.pptx

--

(917) 833-2720

| |
|--|
| Bearbox v Lancium Trial Exhibit TX462 |
|--|

RAMPING

Timing: <5 min

Operation: Remotely via NOC

Operation: Signal from ISO

Operation: Signal from Generator



From: Tim Carter <tim.carter@mp2energy.com>
To: Michael McNamara <michael.mcnamara@lancium.com>
Cc: Jay Young <Jyoung@strategicpowersolutions.net>, Rachel Arndt <rachel.arndt@lancium.com>
Subject: Countersigned EMS attached
Date: Mon, 15 Jul 2019 14:04:26 -0500
Importance: Normal
Attachments: Countersigned_EMS_Lancium_071519.pdf
Inline-Images: image001.jpg; image002.png

Please find the attached countersigned energy management services agreement. We are working with Draco to ensure this site can be started in the market as soon as possible.

Tim Carter CEM, CDSM, CEP

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1061 | C 832.684.5645 | www.MP2Energy.com



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Bearbox v Lancium
Trial Exhibit
TX496

**EXHIBIT "A"****Transaction Confirmation #1**

This Transaction Confirmation confirms the transaction between the Parties agreed to as of the date accepted by MP2 Energy LLC ("MP2") below pursuant to and in accordance with the Energy Management Services Agreement entered into between MP2 and Lancium LLC ("Customer") dated on or about 6/14/2019 (the "Agreement") and constitutes part of and is subject to all of the terms and provisions of such Agreement. Terms used but not defined herein shall have the meanings ascribed to them in the Agreement, or to the extent not therein defined terms shall have the respective meanings set forth in the relevant Protocols, Manuals, Rules and/or Regulations governing the demand response opportunity and/or program.

Opportunity: LR

Date: Start 9/1/2019

Term: through 9/30/2021

Quantity: Approximately .8 MWs to start with an expectation of growing to 7 MWs

| Service Address | ESIID |
|----------------------------------|------------------------|
| 6006 THOMAS RD HOUSTON, TX 77041 | 1008901011901056760115 |

Description: MP2 will offer in to the ERCOT LR market, that amount of capacity that CUSTOMER and MP2 agree reasonably complies with the LR program (the "Quantity"). Customer understands that the Quantity and the value associated therewith may change from time to time.

Economic Settlement: The revenues received relative to this Transaction Confirmation, by MP2 from ERCOT, shall be divided between the Parties upon the following schedule and is dependent on the average hourly MW volumes offered into the LR market for the applicable settlement month:

Less than 5MW: 75% to Customer and 25% to MP2

Between 5MW and 20MW: 83% to Customer and 17% to MP2

Over 20MW: 89% to Customer and 11% to MP2

The revenue sharing breakpoints shall apply to all MWs for the applicable settlement month.

Fees: Customer agrees to pay MP2 a base monthly fee in the amount of \$0 for each month during the Term. Customer authorizes MP2 to deduct the base monthly fee from the revenue accruing to Customer hereunder and MP2 will reflect the deduction on the settlement statement.

Agreed and Accepted.

LANCIUM LLC

By: _____

Name: Michael McNamara

Title: CEO

Date: July 9th, 2019

MP2 ENERGY LLC

By: _____

Name: Robert L. Douglas

Title: EVP, Operations

Date: 7/10/19

From: "Hunsucker, Brett" <Brett.Hunsucker@ercot.com>
To: Vitor Henrique <vitor.henrique@lancium.com>
Subject: RE: FW: Real-Time LMP
Date: Mon, 22 Apr 2019 15:49:23 -0500
Importance: Normal
Inline-Images: image001.jpg; image004.jpg

Good afternoon, Victor.

I apologize for the delay. Yes, ERCOT data such as LMPs are accessible via an API. For more information, please refer to the [EIP External Interfaces Specification v1.20L](#).

Regards,



Brett Hunsucker
Manager, ERCOT Client Services
Office: 512.248.6556 **Cell:** 971.263.8843
Brett.Hunsucker@ercot.com

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From: Vitor Henrique [mailto:vitor.henrique@lancium.com]
Sent: Monday, April 22, 2019 2:33 PM
To: info <i@ercot.com>
Cc: Hunsucker, Brett <Brett.Hunsucker@ercot.com>
Subject: Re: FW: Real-Time LMP

******* EXTERNAL email. Please be cautious and evaluate before you click on links, open attachments, or provide credentials. *******

Hello,

I haven't received any response on my request yet, could you please follow up?

Vitor Henrique

On Thu, Apr 18, 2019 at 1:01 PM info <i@ercot.com> wrote:

Dear Vitor Henrique,

Thank you for your inquiry.

Since your company is a registered Market Participant in the ERCOT Market, your request has been routed to the appropriate internal department.

LANCIUM LLC (IMRE)'s assigned Account Manager, Brett Hunsucker, will contact you regarding your request.

| |
|--|
| Bearbox v Lancium Trial Exhibit TX501 |
|--|

Regards,



Information Request Services
ERCOT Client Services
2705 West Lake Drive | Taylor, TX
www.ercot.com

From: Vitor Henrique [mailto:vitor.henrique@lancium.com]
Sent: Thursday, April 18, 2019 12:09 PM
To: info <i@ercot.com>
Subject: Real-Time LMP

******* EXTERNAL email. Please be cautious and evaluate before you click on links, open attachments, or provide credentials. *******

Hello,

Is there a way to get access to the LMP value through an API instead of the tables?

Best regards,

--

Vitor Henrique
System Engineer at Lancium
(832) 815 9054

--

Vitor Henrique
System Engineer at Lancium
(832) 815 9054

From: Raymond Cline <recline@lancium.com>

To: Michael McNamara <michael.mcnamara@lancium.com>

Subject: MP2 Demand Response

Date: Tue, 27 Aug 2019 15:07:49 -0500

Importance: Normal

Attachments: ADK_LD1_-_Lancium_-_2019-08-27.xlsx; ADK_LD1_-_Lancium_-_2019-08-26.xlsx;
ADK_LD1_-_Lancium_-_2019-08-28.xlsx

Michael,

Attached you will find three spreadsheets that calculate the demand response "revenue". Yesterday was a good day for this program. We had a call with Tim Carter to understand what they were sending to us. "Award" is the MW that ERCOT has awarded us for the hour. "LMP" is the day ahead clearance settlement price, or something like that, which is the price per MW we would receive. Award x "LMP" = dollars to us.

An important point, which didn't come across in our conversations, is that the award is essentially an obligation on our part, that we consume that amount of power that ERCOT COULD curtail. If we routinely use less than our award we could suffer a penalty. Also, if we are going to shutdown or plan to use less than our award we should notify MP2, so that they can balance accordingly.

We are working to automate processing of the spreadsheet we receive from MP2 and we will try to automate notifications if possible. This is a bit more complicated than we originally understood, but we will adapt.

Good news is that we will have received:

8/26 \$4,596.02
8/27 \$337.66
8/28 \$473.88
Total \$5,407.56

That is already more than 1/3 of a months worth of T&D charges.

Cheers,

Ray

Raymond E. Cline Jr., PhD
Chief Computing Officer

| |
|--|
| Bearbox v Lancium Trial Exhibit TX526 |
|--|

From: Michael McNamara <michael.mcnamara@lancium.com>

To: Raymond Cline <recline@lancium.com>, Ian Rock <ian.rock@lancium.com>, Vitor Henrique <vitor.henrique@lancium.com>

Subject: Thomas Road Power

Date: Fri, 16 Aug 2019 15:29:57 -0400

Attachments: Thomas_Road_Power_Cosiderations.xlsx

As of today, we have a fixed price power contract with Calpine at Thomas Road for ATC power at ~\$34/MWh.

This is cool. We now have two revenue sources: Bitcoin mining and selling power back to grid.

I took a crack at comparing economics. We will want to watch this closely and update regularly - probably multiple times a day.

Please take a look and we can get on a call to discuss.

--

(917) 833-2720

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| Bearbox v Lancium Trial Exhibit TX567 |
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From: David Henson <david.henson@lancium.com>
To: Michael McNamara <michael.mcnamara@lancium.com>
Cc: "Tobin, Brian" <Brian.Tobin@nexteraenergy.com>, Steve Pattyn <spattyn@gmail.com>, Jon Cohen <jon.cohen@lancium.com>, "Kelly, Kevin" <Kevin.Kelly@nexteraenergy.com>
Subject: Re: Checking / New Mexico Wind Energy Center
Date: Tue, 6 Feb 2018 18:02:13 -0600

Hi Brian, happy to discuss the technical Flex aspects. Our power management platform takes a variety of signals including grid telemetry, nodal economic real time data to derive a shaped load response in the minute response timeframe, 200Kw to 1 MW for the nominal 1 MW units. We are also developing frequency response characteristics within that control range that may be of interest. Our target 'on line' time per machine is in 10 minute (plus 2 minutes spool time). Those metrics are approximately the same at machine level or asset level(1MW Flex box level)

Regards
David

David Henson
Lancium

On Feb 6, 2018, at 3:59 PM, Michael McNamara <michael.mcnamara@lancium.com> wrote:

Hi Brian,

Once we get some information on the farm's capacity factor, we'll work with you to tailor a solution including some mix of our Core and Flex units. We would like to find a way for Core units to run as much as possible (90pct+). The Flex units, on the other hand, are designed to ramp up and down often. Flex units can ramp up to full capacity and down to 0 load within a 10 minute window. We think we can get that window down to 5 minutes.

I've CC'd our technical head here, David Henson, who can provide more details as needed. As always, we can hop on a call at any time to talk in more detail. Just let us know.

Sent from my iPhone

On Feb 6, 2018, at 4:42 PM, Tobin, Brian <Brian.Tobin@nexteraenergy.com> wrote:

Hi Steve,

We are still working through our structure and are making progress. I have a question, technically, how would the servers shutdown before power comes back in from the grid when the wind stops blowing. Also, what if

| |
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| Bearbox v Lancium Trial Exhibit TX594 |
|--|

From: Vitor Henrique <vitor.henrique@lancium.com>
To: Deon Wyatt <deon.wyatt@mp2energy.com>
Subject: Re: ADK_LD1 - Lancium LR Awards.xlsx
Date: Wed, 4 Sep 2019 10:10:22 -0500
Inline-Images: image001.jpg; image002.png

Hello Deon,

Any news on today's file? I automated our dashboard with the input file, so we can track it on our operational dashboard.

Best regards,

Vitor Henrique

On Tue, Sep 3, 2019 at 8:50 AM Deon Wyatt <deon.wyatt@mp2energy.com> wrote:

Please see attachment.

Deon Wyatt

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1063 | C 832.917.4570 | www.MP2Energy.com



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From: Deon Wyatt <deon.wyatt@mp2energy.com>
Sent: Sunday, September 01, 2019 3:09 PM
To: ian.rock@lancium.com; recline@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com

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|--|
| Bearbox v Lancium Trial Exhibit TX595 |
|--|

Cc: MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: RE: ADK_LD1 - Lancium LR Awards.xlsx

Please see attachment.

Deon Wyatt

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From: Deon Wyatt <deon.wyatt@mp2energy.com>
Sent: Saturday, August 31, 2019 2:36 PM
To: ian.rock@lancium.com; recline@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com
Cc: MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: RE: ADK_LD1 - Lancium LR Awards.xlsx

Please see attachment.

Deon Wyatt

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1063 | C 832.917.4570 | www.MP2Energy.com



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From: Deon Wyatt <deon.wyatt@mp2energy.com>
Sent: Friday, August 30, 2019 2:54 PM
To: ian.rock@lancium.com; recline@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com
Cc: MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: RE: ADK_LD1 - Lancium LR Awards.xlsx

Please see attachment.

Deon Wyatt

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1063 | C 832.917.4570 | www.MP2Energy.com



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From: Deon Wyatt
Sent: Thursday, August 29, 2019 2:40 PM
To: 'ian.rock@lancium.com' <ian.rock@lancium.com>; 'recline@lancium.com' <recline@lancium.com>; 'thomas.salvatore@lancium.com' <thomas.salvatore@lancium.com>; 'vitor.henrique@lancium.com' <vitor.henrique@lancium.com>
Cc: MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: Revised ADK_LD1 - Lancium LR Awards.xlsx

Revised.

Deon Wyatt

MP2 Energy LLC, A Shell Energy North America Subsidiary

O 832.510.1063 | C 832.917.4570 | www.MP2Energy.com



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From: Deon Wyatt
Sent: Wednesday, August 28, 2019 1:48 PM
To: ian.rock@lancium.com; recline@lancium.com; thomas.salvatore@lancium.com; vitor.henrique@lancium.com
Cc: MP2 Asset Operations Desk <operations@mp2energy.com>
Subject: RE: ADK_LD1 - Lancium LR Awards.xlsx

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Vitor Henrique
System Engineer at Lancium
(832) 815 9054

External Sender: Use caution with links/attachments.

Hi Todd,

Do you have any intro material on participating in EROT's ERS program? We think our load is well suited, but were curious as to what the process and requirements are.

Also we've been working with Centerpoint on looking at upgrade options for Thomas Rd, but its taking longer than anticipated. Will keep you posted on that

Thanks,

Jon

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BEGIN:VCARD

VERSION:2.1

N;LANGUAGE=en-us:Young;Jay

FN:Jay Young

ORG:Strategic Power Solutions

TITLE:President

TEL;WORK;VOICE:(214) 415-5462

X-MS-OL-DEFAULT-POSTAL-ADDRESS:0

EMAIL;PREF;INTERNET:jyoung@strategicpowersolutions.net

X-MS-OL-DESIGN;CHARSET=utf-8:<card

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REV:20190514T142802Z

END:VCARD

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From: Michael McNamara <michael.mcnamara@lancium.com>
To: Jay Young <Jyoung@strategicpowersolutions.net>
Subject: Re: LR DEMAND RESPONSE PRESENTATION 2019.pptx
Date: Sat, 18 May 2019 12:57:01 -0400
Attachments: Lancium_Introduction_and_Overview_-_May_2019.pdf

Jay,

Here is some introductory information on us. As I mentioned, our data centers are co-located directly at wind project substations and generally sit "behind-the-meter". We can pick up and drop 95% of our entire load in under 5 minutes (actually under 1 min) and our load follows the generation profile of the wind facility. We get first call on all power out of the wind facility with the exception that we turn down when prices exceed \$75/MWh.

Our first facility is 36 MW near Lubbock. We will actually have an AEP subtractive meter and ERCOT will be able to monitor our consumption. If we could quality for LR it would be awesome!

Lets chat on Monday?

On Sat, May 18, 2019 at 12:44 PM Michael McNamara <michael.mcnamara@lancium.com> wrote:
Jay,

Do you have 5 min to talk over the phone? Wanted to run an idea by you.

On Sat, May 18, 2019 at 9:34 AM Jay Young <Jyoung@strategicpowersolutions.net> wrote:
I have a call with the QSE Monday morning to start the process. I will follow up after that call with steps to quickly get this going.

Sent from my iPhone

On May 18, 2019, at 11:31 AM, Michael McNamara <michael.mcnamara@lancium.com> wrote:

Ok - what do we do next?

On Sat, May 18, 2019 at 7:35 AM Jay Young <Jyoung@strategicpowersolutions.net> wrote:

Jon and Michael –

Attached is the information we discussed on Thursday for the DR programs in ERCOT. This covers all of the high level details. We will need to do a site and software assessment to see what is needed for telemetry, communication, etc.

CPower mentioned that the quickest they have enrolled a new participant was 35 days. So if we want to take advantage of historically high summer revenues, we need to get on this next week.

| |
|--|
| Bearbox v Lancium Trial Exhibit TX740 |
|--|

I used to work for CPower and continue to do business with them. They have a great team and are one of the largest QSE's in the nation.

Please let me know if you have any questions.

Thank you,

Jay A. Young

President

Strategic Power Solutions

214-415-5462

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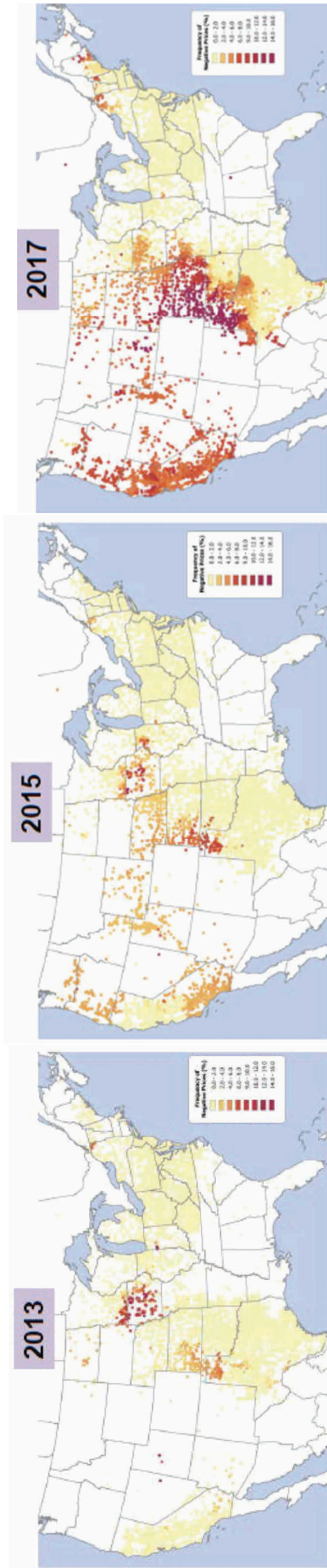


POWERING THE FUTURE OF COMPUTING

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TOO MUCH GREEN POWER IS OVERWHELMING THE GRID

Incidences of Negative Priced Power



Source: National Renewable Energy Laboratory (NREL)



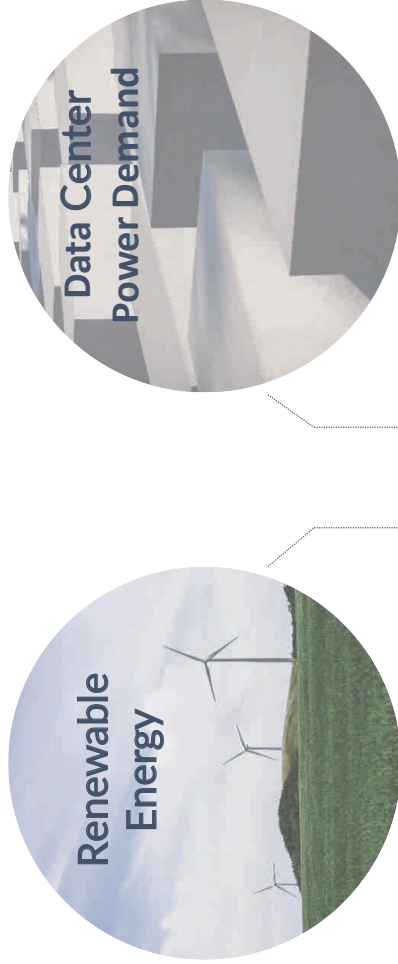
DISTRIBUTED COMPUTING CAN FIX IT

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INTRODUCTION

- Lancium is a new company that sits at the confluence of mega trends involving computing and energy
- Lancium's proprietary solution allows specialized data centers to consume power directly from renewable energy facilities
- Lancium's innovations (30+ patents in process) position the company as the lowest cost provider of distributed computing



LANCIUM



CURRENT MEGA TRENDS IN POWER AND COMPUTING



MOVE TO 100% RENEWABLE GRID

- Renewable generation's share of the power grid will continue to grow
- Zero variable cost leads to increasing frequency of negative priced electricity



GROWTH OF PARALLEL COMPUTING

- Exploding demand for perfectly parallel applications
- These applications (ML, AI and simulations) are unaffected by interruptions



DATA CENTER POWER DEMAND

- Steadily increasing demand for more power at ever increasing power densities
- The End of Moore's Law makes electricity the key cost driver

BIOGRAPHIES



Michael McNamara
Co-Founder and Chief Executive Officer

Entrepreneur and private investor with deep experience in the power, energy and technology industries. Previously, Michael covered energy and resources at a number of multi-billion dollar buy side institutions. Michael graduated from Georgetown University magna cum laude with degrees in Finance and Accounting.



Raymond Cline, Ph.D.
Co-Founder and Chief Computing Officer

Dr. Cline has over 38 years of experience in high performance computing, distributed computing, and information technology. He has held research and senior management level positions at Sandia National Laboratories, SAIC, EDS, HP, University of Houston, and CGI. Dr. Cline has a PhD in Chemical Physics.



Jon Cohen
Chief Financial Officer

Highly experienced power and utilities expert with over twenty years experience in the financial services industry. Jon was previously an Investment Banker at Credit Suisse. Jon most recently covered the Power and Utilities sector at Millennium Management.



Joining June, 2019
Andrew Grimshaw, Ph.D.
Chief Software Architect

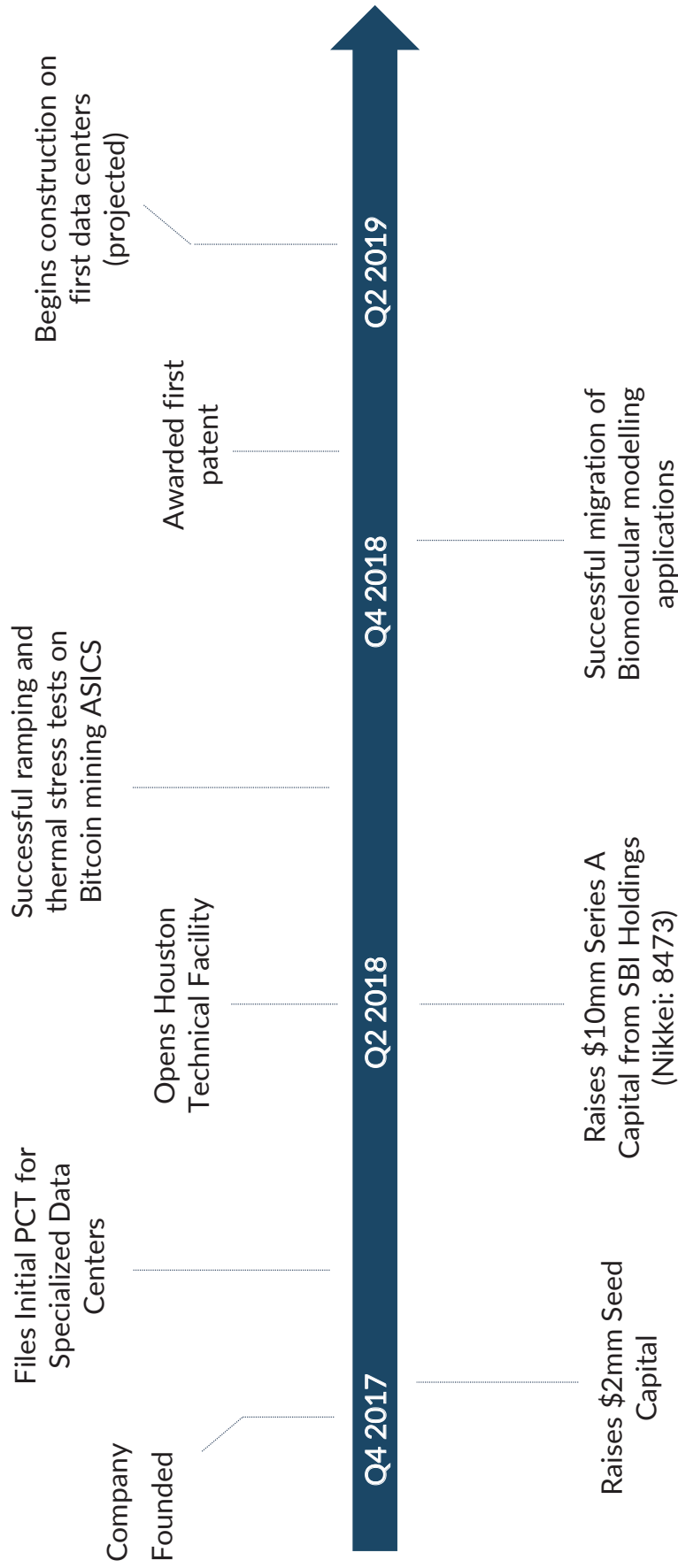
Professor of Computer Science, UVA (on leave). He is the chief designer and architect of Mentat and Legion. In 1999 he co-founded Avaki Corporation, and served as its Chairman and Chief Technical Officer, until 2005 when Avaki was acquired by Sybase.



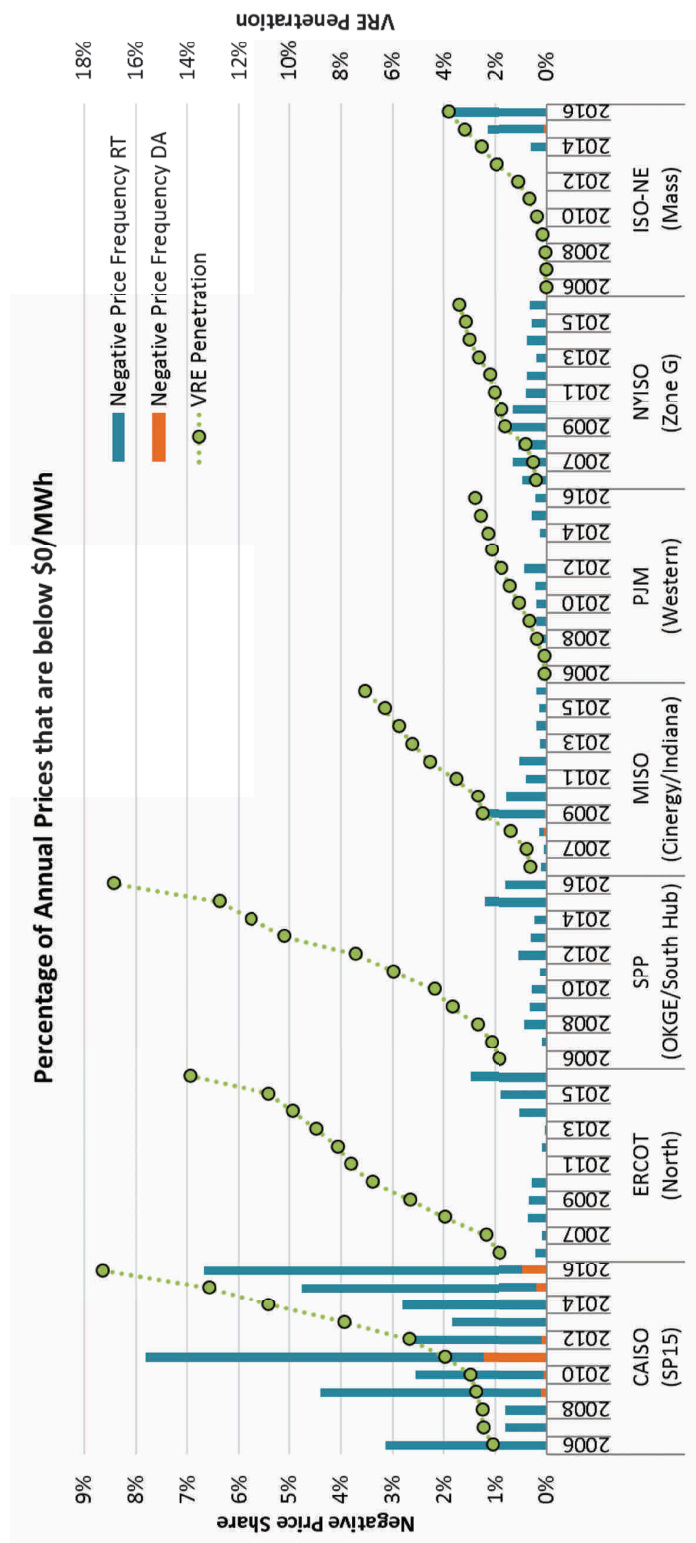
Eric Kutscha
EVP - Operations

Eric has more than 30 years' experience leading electrical engineering and project management of electrical power and control projects. Eric was most recently at Rockwell Automation Intelligent Packaged Power after completing more than 35 years in various sales, engineering, and leadership roles at Siemens.

COMPANY HISTORY AND TIMELINE



THE PROBLEM



Source: UC Berkeley

DISTRIBUTED COMPUTING IS THE ANSWER

Bring the solution directly to the problem



MORE TRANSMISSION?

- Too expensive
- Cannot get permitted
- No near term projects on horizon in major renewable regions



BATTERY OR STORAGE?

- Currently too expensive
- Shifts availability but not incremental demand
- Price spread in wind corridor does not support construction



COMPUTE AT THE SOURCE

- Consumes excess power directly from the facility
- Ramps up and down based on power availability and price
- Perfectly suited for parallel computing applications

HOW CAN DISTRIBUTED COMPUTING WORK USING ONLY WIND POWER?

Uptime? Target specific applications and control server power rapidly (utilize intermittent power availability)

Lost Work? Checkpoint application status and move jobs as needed (no redundancy required)

Power Surges? Use software to dynamically control servers (no UPS needed)

Temperature Control? Only run when power is available and inexpensive (no HVAC required)

Backup Power? Not necessary - Lancium computing does not require grid power so no Transmission & Distribution charges

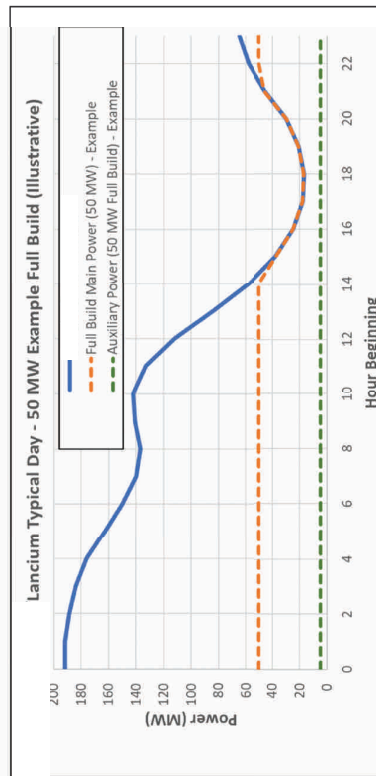
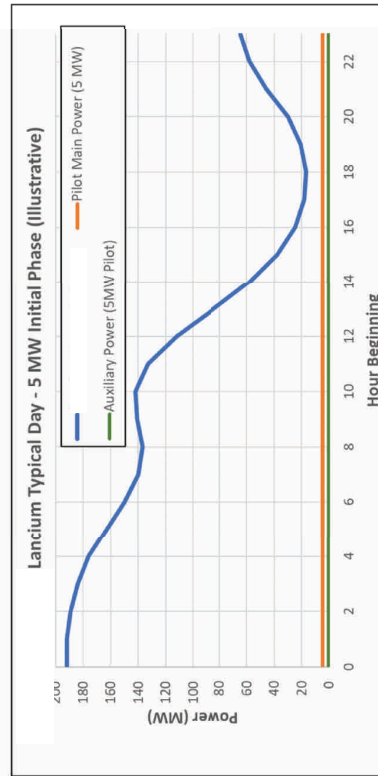
LANCIUM'S BENEFIT TO THE OPERATOR AND THE GRID

Lancium power consumption follows the generation profile of wind projects

Data centers spin up and down rapidly to match load with power availability and price

Lancium will spin down during periods of high priced power to enable:

- Generator to maximize profit
- Stronger, more resilient Grid
- Reduced data center thermal stress



CHALLENGES ADDRESSED: LANCIMUM MOAT

Multi-disciplined engineering approach



- Fundamental rethinking of data center design, power market structure and computing paradigms
- Addressed via engineering advancements and in-house innovations



Regulatory and transaction structure



Electrical engineering including power factor and harmonics management



Software development and individual server control



Thermal control and heat resistance insights

Appx12408



LANCIUM COST ADVANTAGES

Appx12409

CAPITAL COSTS:

- Very inexpensive to site and build
- Minimal real estate value in Wind Corridor
- Entirely air cooled with no expensive HVAC system
- No redundant systems required

OPERATING COSTS:

- World's cheapest power with no transmission and distribution charges
- Excellent Power Use Effectiveness (PUE) with limited parasitic loss
- Flexible clocking ability

LANCIUM COMPETITIVE ADVANTAGES

- Exclusive ability to utilize exceptionally cheap but intermittent renewable power
- In excess of 30 patents filed or in process
- Enables more renewable generation

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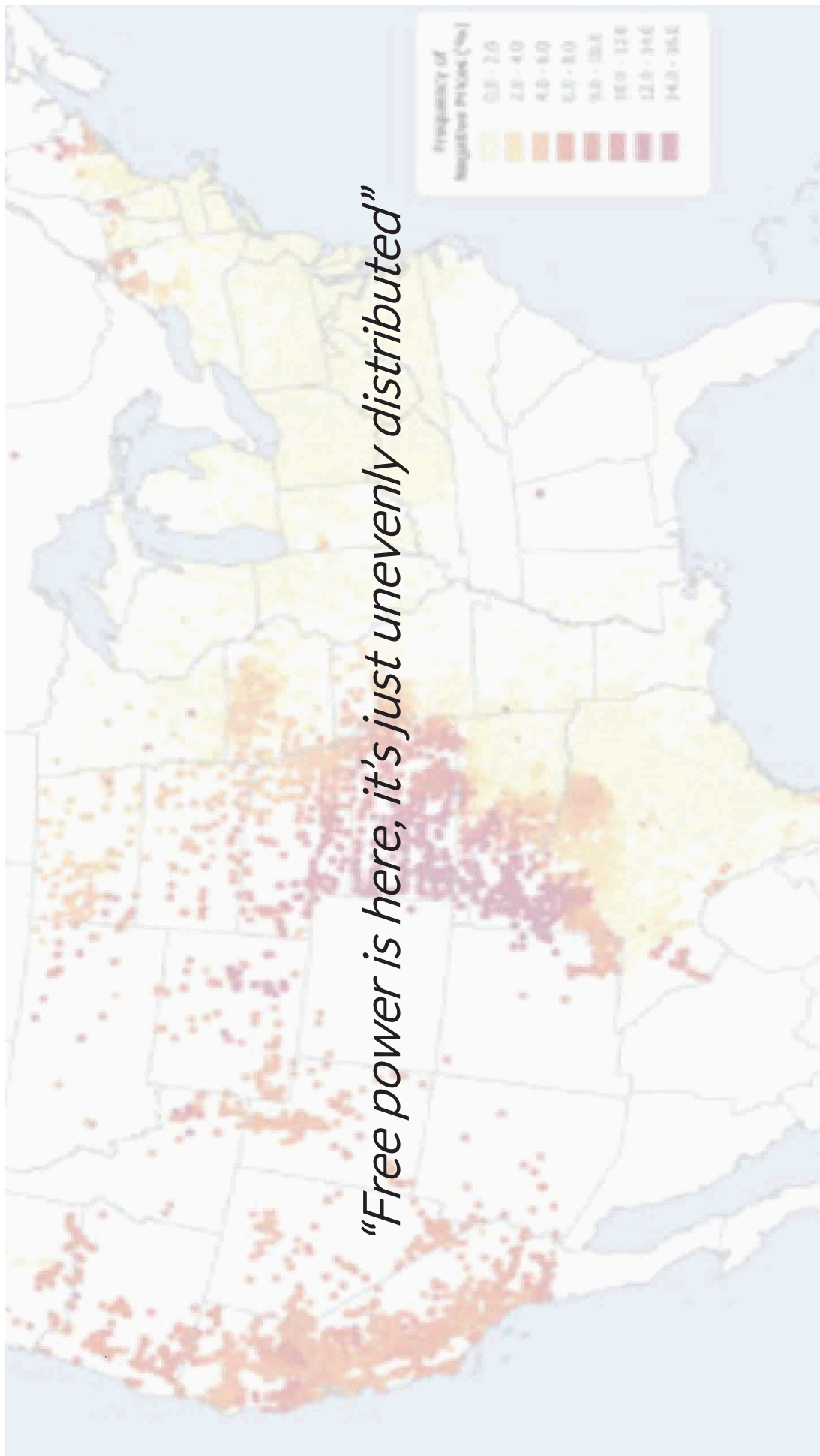


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GO TO MARKET STRATGEY

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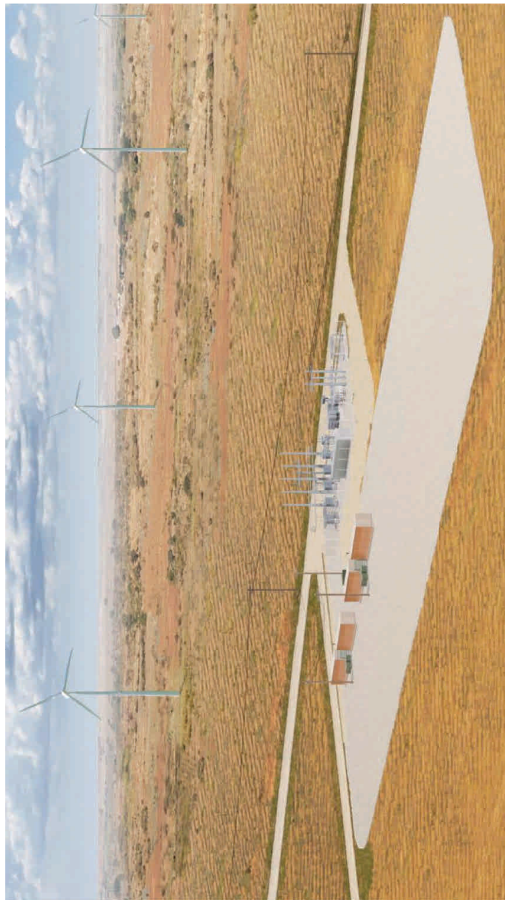
CORPORATE STRATEGY

| | |
|------------------------------|---|
| Capture the Potential Market | Lancium has executed term sheets with four of the world's largest power producers covering 100MW+ of power |
| Move Fast... | The company is proceeding with pilot stage projects at each power producer to solidify first mover and power price advantage |
| ...but in a Staged Manner | Pilot stage projects require limited capital with Lancium retaining option to commence commercial stage expansion |
| Up-Sell Rack Space | The data centers will initially be filled with Crypto mining ASICs and backfilled with High Value distributed computing over time |
| Target Long-Term Deals | Lancium plans on signing long term deals for distributed computing with customers in Industry, Government and Academia |

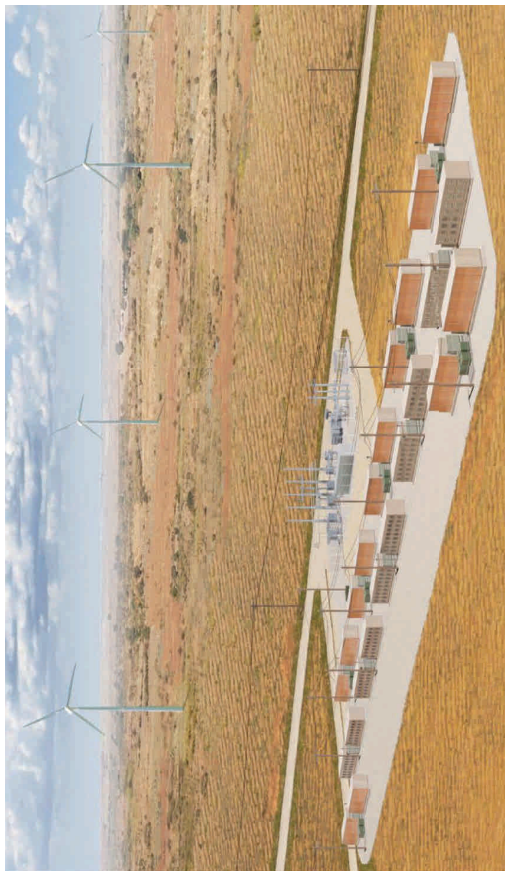
STAGED GROWTH: DATA CENTER LEVEL

Grow footprint to match demand and financing availability

PILOT STAGE: 6MW



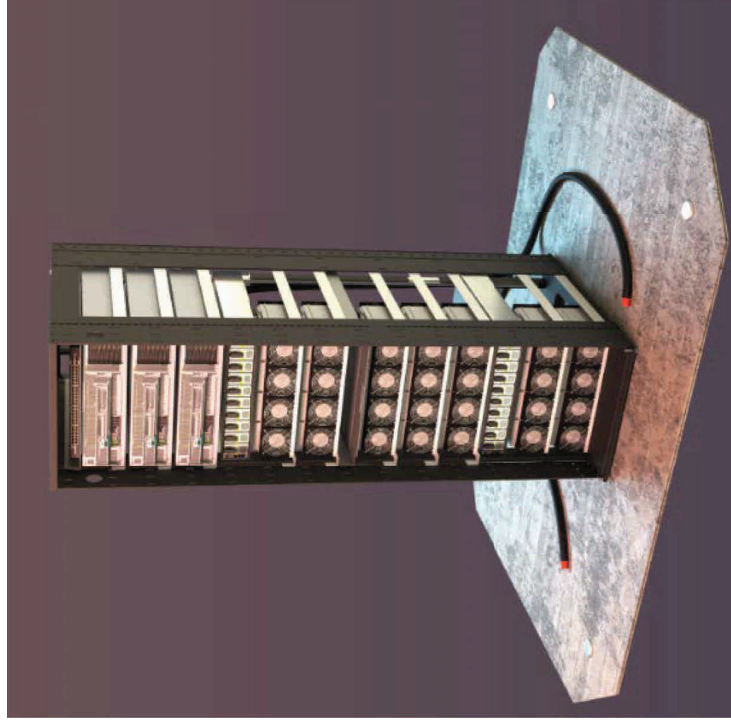
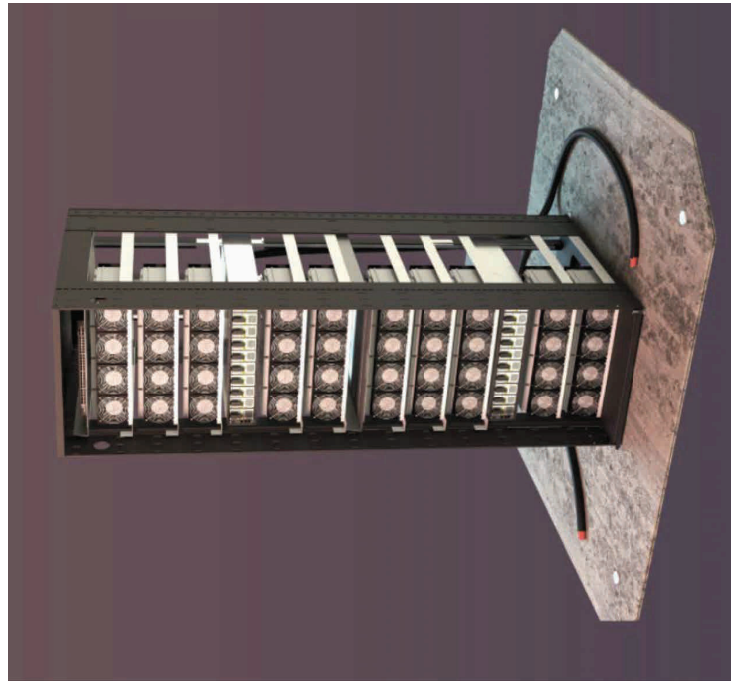
COMMERCIAL STAGE: 35MW



Appx12414

STAGED GROWTH: RACK LEVEL

Distributed computing hardware will displace Crypto ASICs over time



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Requires no sales team and provides immediate revenue

Extremely cheap to install on per KW basis

Crypto ASICs are durable and heat resistant

Requires limited data center fabric and network

Bitcoin mining provides steady margin for those with very low priced power

MARKET STRATEGY FOR CRYPTO RACK SPACE

BULL MARKET

(high ratio of block reward to hash rate)

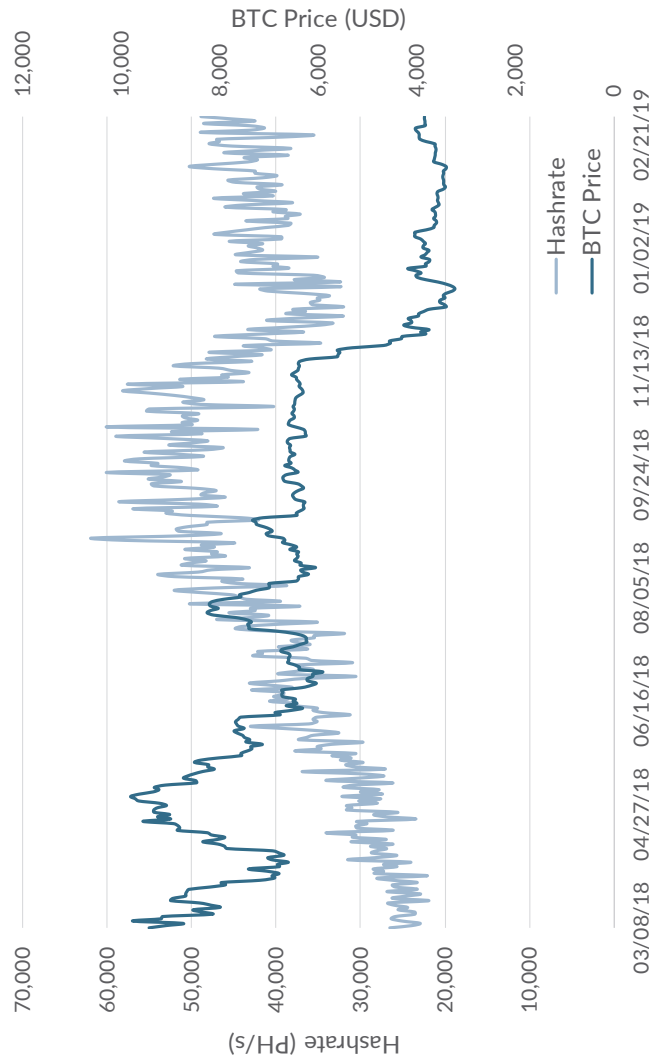
- Enter into multi-year hosting arrangements on existing or new build rack space
- Run legacy merchant machines or bring machines "out of retirement"

BEAR MARKET

(low ratio of block reward to hash rate)

- Purchase machines at very low or scrap value to capitalize on Lancium energy price advantage
- Enter into Vendor Finance arrangements with OEMs

BITCOIN MINING ECONOMIC CONSIDERATIONS



Extremely rational commodity business

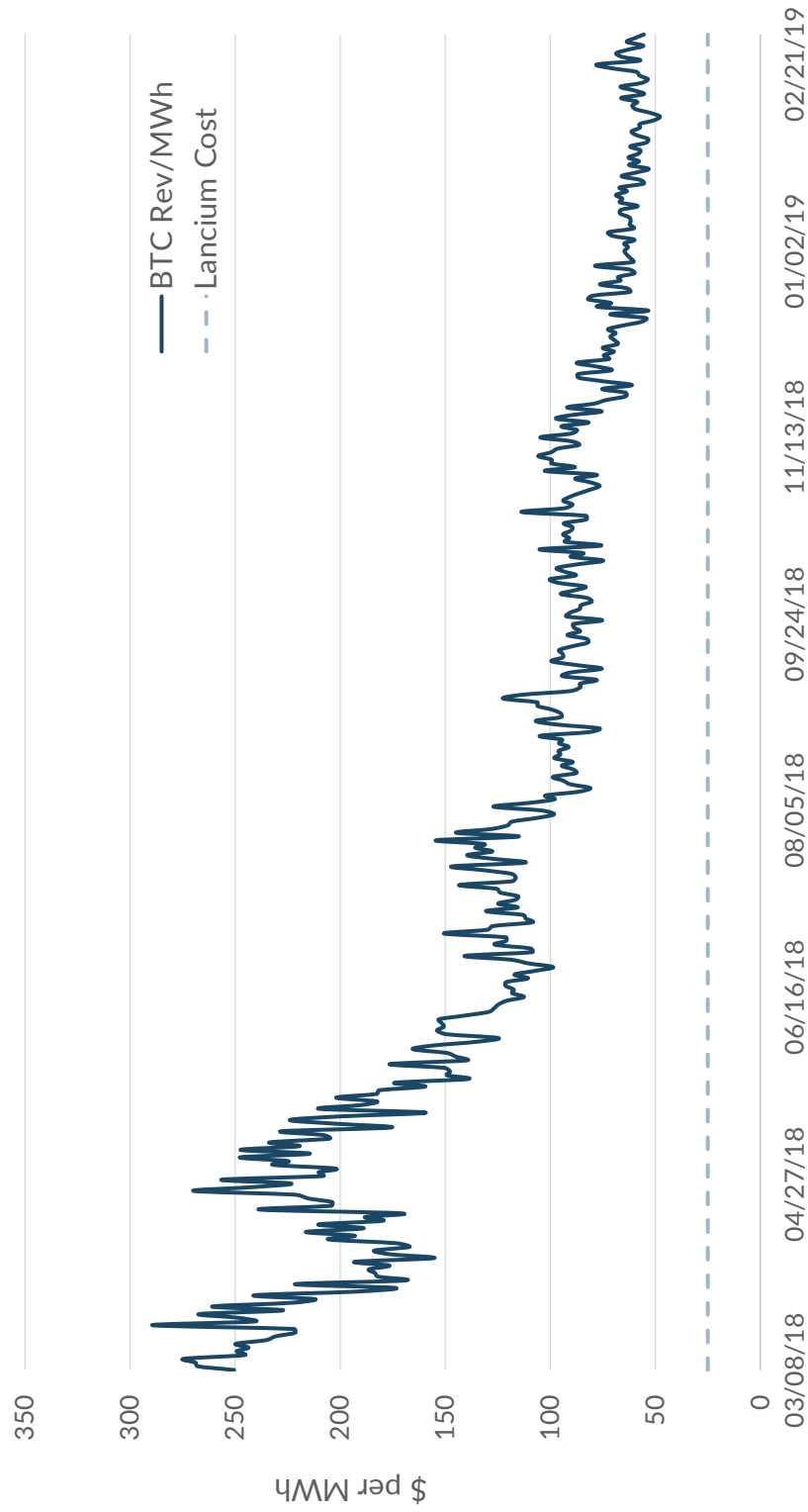
Due to the End of Moore's Law, limited availability to improve ASICs

Operating cost (electricity) is now the key major variable

Bitcoin mining profitability is driven by Bitcoin price, Hash Rate and electricity

Recently, hash rate has been extremely responsive to Bitcoin price moves which creates embedded margin if one has access to very cheap electricity

BTC MINING REVENUE (S9): EMBEDDED MARGIN



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AFTER BITCOIN MINING? THE NEXT APPLICATIONS

| | Description | Examples |
|--|--|--|
| High Throughput Computing, (<i>Tightly Coupled</i>) High Performance Computing | Highest value computing for major Government, Industrial and Academic research | Fluid Dynamics, Large Machine Learning Studies, Weather Modelling |
| High Throughput Computing, (<i>Loosely Coupled</i>) | Parallel computing that does not require expensive and complex networking | Monte Carlo Modelling, Small Machine Learning Studies, Image Rendering |
| Low Value Computing | Bitcoin mining will be deployed first due to ease and low capital cost | Proof-of-Work |

TOTAL ADDRESSABLE MARKET

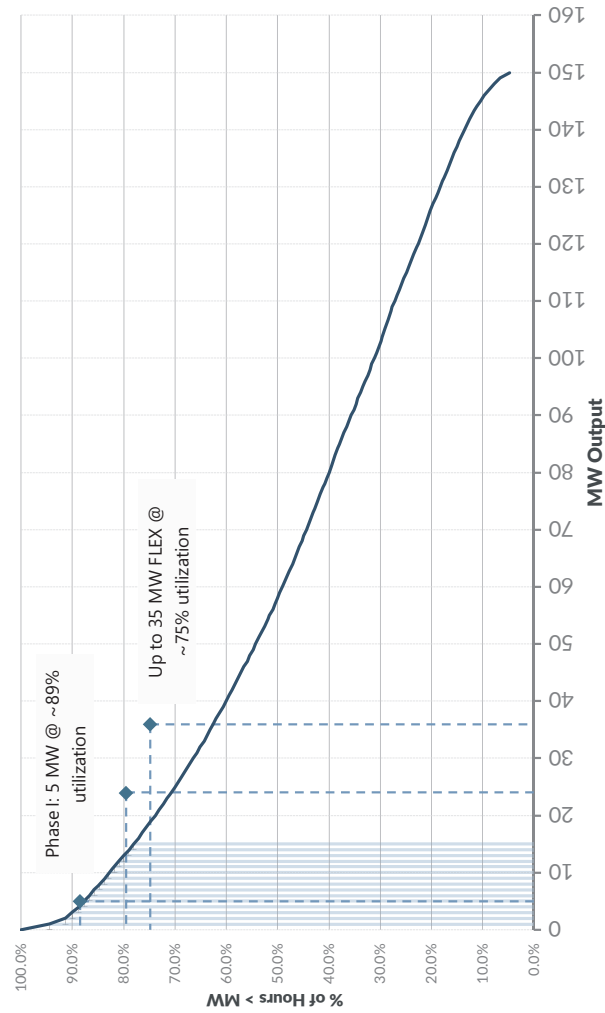
| | Total Addressable Market (USD) | Highly Suited to Lancium % | Highly Suited to Lancium (USD) |
|----------------------------------|--------------------------------|----------------------------|--------------------------------|
| High Performance Computing | \$10 B | 30%+ | \$3 B |
| Cloud and Computing Industries | \$20 B | 25%+ | \$5 B |
| Hyperscale and Consumer Internet | \$20 B | 25%+ | \$5 B |
| Low Value Computing | \$3 B | 100%+ | \$3 B |

Source: NVIDIA, Lancium internal estimates

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WHY WIND? THE DISTRIBUTION OF POWER GENERATION

POWER DURATION CURVE



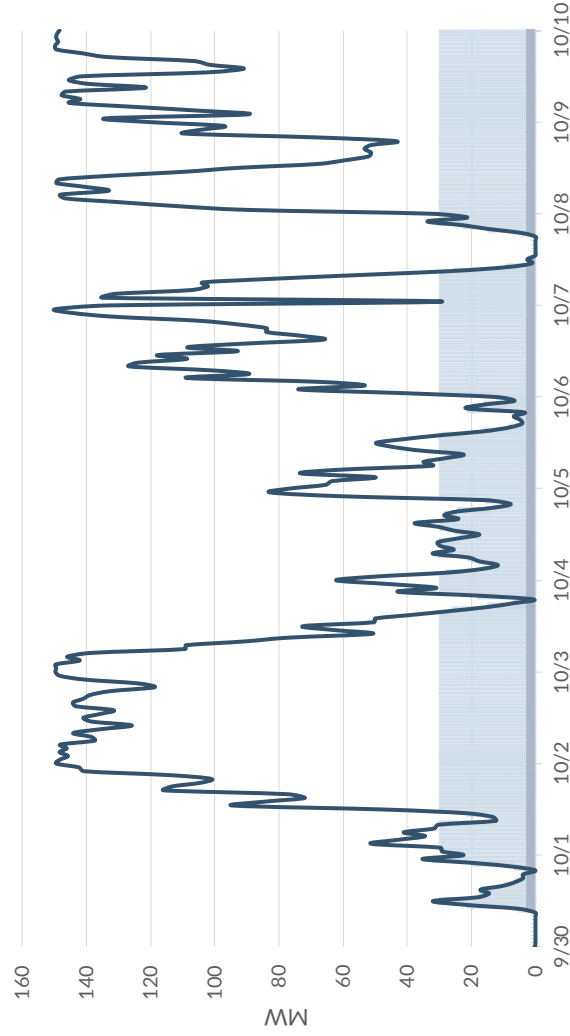
Wind production distribution allows for a tiered data center installation

Lancium deal arrangements call for “first call” on power with high priced hours retained by the generator

Some power is nearly always available to Lancium data centers

Available power is routed to most valuable computing hardware first

WHY WIND? THE DISTRIBUTION OF POWER GENERATION



Low value computing (light blue) will serve as a buffer and absorb the majority of wind power variability

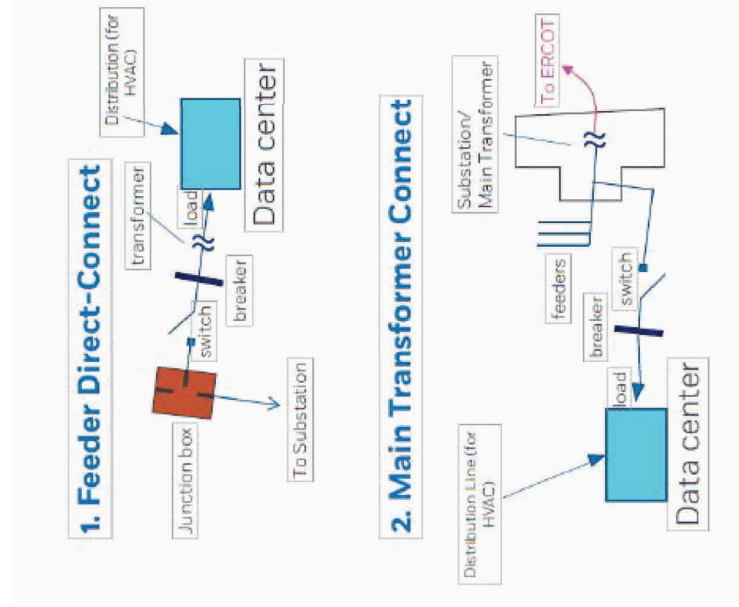
Lancium has proven the resiliency of bitcoin mining hardware to constant and fast ramping

Higher value computing (gray) will receive nearly constant power and will see rare and short periods of downtime

WIND ENGINEERING CONSIDERATIONS

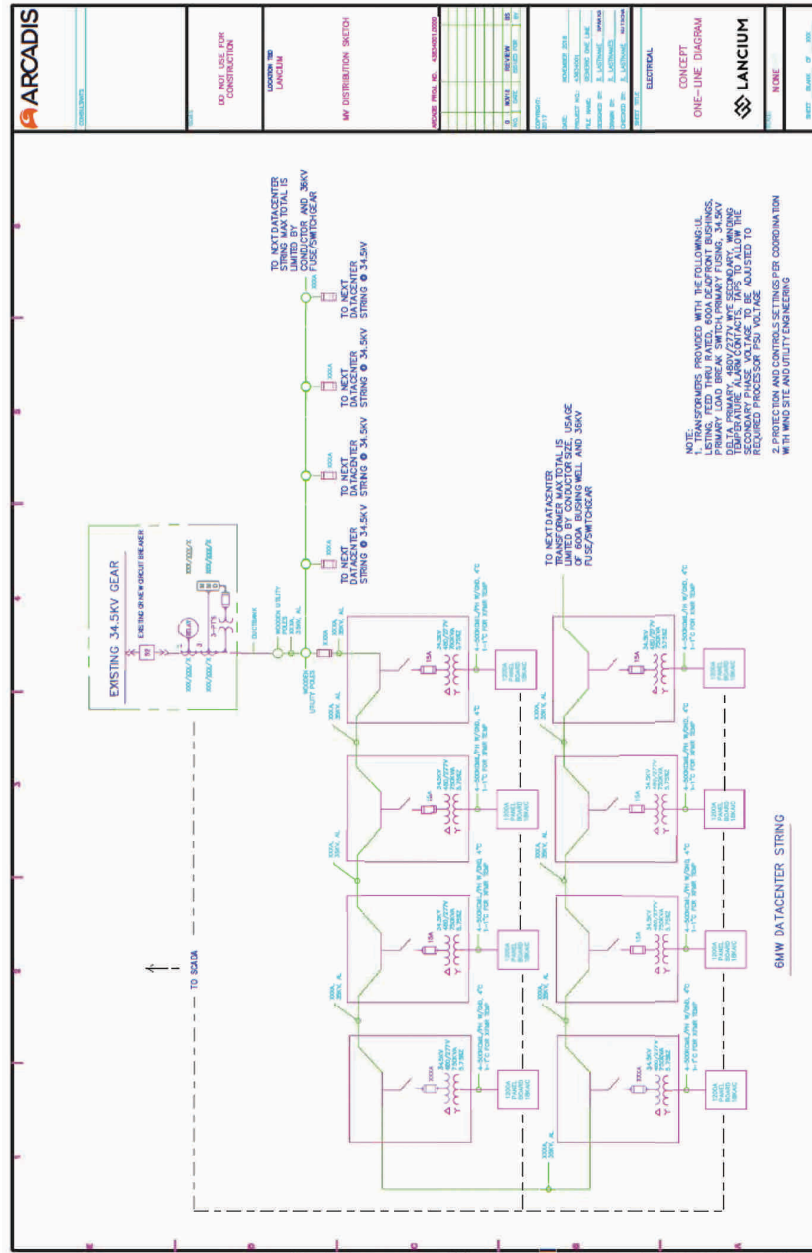
Lancium has developed several interconnection options to fit the needs of its wind partners

- Lancium has worked on two potential options: (1) Feeder Direct-Connect or (2) Main Transformer Connect
- Regardless of approach, Server Facility would be behind a breaker-switch and/or other equipment to enable isolation
- Isolation equipment to be in complete control of wind project (except in cases of curtailment for safety purposes by Lancium)



ILLUSTRATIVE SINGLE LINE DIAGRAM

Conceptual SLD for substation interconnect



29

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LANCIUM00035248

The World's Only Truly Green Computing

"Run cycles at Lancium and help save the planet."

Appx12426

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LNCIUM00035249

MICHAEL MCNAMARA, Michael McNamara, Storms

Contributors:



Name: MICHAEL MCNAMARA
Email: mcnamarm@hotmail.com



Name: Michael McNamara
Phone: [REDACTED]



Name: Storms
Phone: +1 (985) 377-6257

2019-05-04 04:57:43 +0000

Storms
+1 (985) 377-6257

S

Storms

2019-05-05 20:00:52 +0000

Michael McNamara
[REDACTED]

Storms, great to meet you at the conference

This is me:

2019-05-05 20:00:53 +0000

<https://www.linkedin.com/in/michael-mcnamara-1055211>

M

2019-05-05 20:04:41 +0000

Storms
+1 (985) 377-6257

Same here, Michael. I'm not on LinkedIn, but you've got my personal #.

S

I'll put some feelers out to some of my PM friends this week about what we talked about Fri night. Tty soon.

2019-05-05 20:06:45 +0000

Michael McNamara
[REDACTED]

Thanks - that's great

I also think your boxes may have some benefits vs the ones we are doing with JB driver

Lots of stuff to collaborate on

M

2019-05-05 23:43:04 +0000

Storms
+1 (985) 377-6257

Absolutely. I can send you specs on the boxes/PDUs/logic design - what's your email?

S

Bearbox v Lancium
Trial Exhibit
TX742

2019-05-05 23:45:00 +0000

Michael McNamara

Michael.mcnamara@lancium.com

M

2019-05-05 23:49:01 +0000

Storms
+1 (985) 377-6257

S



2019-05-08 17:45:41 +0000

Michael McNamara

Storms, can you send me those box design specs please!

M

2019-05-08 20:31:39 +0000

Storms
+1 (985) 377-6257

S

Yep! I'll put it together when I get home tonight

2019-05-08 20:31:55 +0000

Michael McNamara

Thank you, sir

M

2019-05-09 14:44:52 +0000

Storms
+1 (985) 377-6257

S

Redoing one of the spec sheets for the newer Whatsminer models then emailing over to you

2019-05-09 14:49:50 +0000

Michael McNamara

Great - thanks

2019-05-09 15:51:01 +0000

Also, have you ever looked at building a GPU box?

M

2019-05-09 15:52:22 +0000

Storms
+1 (985) 377-6257

S

I haven't - but conceptually it's the same. Less electrical load density and less CFM exhaust requirements.

From: Michael McNamara <michael.mcnamara@lancium.com>
To: Justin Nolan <justinhnolan@gmail.com>
Cc: Jon Cohen <jon.cohen@lancium.com>, jamie@cormint.com
Subject: Re: Meeting tomorrow
Date: Mon, 6 May 2019 14:47:12 -0400
Attachments: Lancium_Standard_Mutual_NDA_.doc; Lancium_Introduction_and_Overview_-_April_2019.pdf

Jamie,

Looking forward to meeting later today. Attached is our standard NDA and a background pack on us.

Cheers,
Michael

On Fri, May 3, 2019 at 9:44 AM Justin Nolan <justinhnolan@gmail.com> wrote:

Great meeting you. I look forward to connecting after this weekend to figure out how we can move this project forward. Thanks
Justin

On May 3, 2019, at 9:16 AM, Michael McNamara <michael.mcnamara@lancium.com> wrote:

Great lunch yesterday. I think there are a number of ways to work together. Jamie, we'll see you soon.

On Wed, May 1, 2019 at 6:56 PM Justin Nolan <justinhnolan@gmail.com> wrote:

Jon

Jamie is driving and I don't know the coordinates but the land is located in ward county

On May 1, 2019, at 5:26 PM, Jon Cohen <jon.cohen@lancium.com> wrote:

Great. We'll see you then. We don't have a reservation, so if any trouble getting a table we'll call an audible.

In the meantime if you can send me location/ coordinates of site, I can take a look at historical LMPs and see which service territory and tariff rates apply.

On Wed, May 1, 2019 at 2:40 PM Justin Nolan <justinhnolan@gmail.com> wrote:

That works for both of us

> On May 1, 2019, at 1:40 PM, Jon Cohen <jon.cohen@lancium.com> wrote:

>

> Would you both be able to meet tomorrow at 12:45 tomorrow?

> Michael suggested lunch at Hillstone (27th), but not sure if you have other plans

>

>

>

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| Bearbox v Lancium Trial Exhibit TX748 |
|---|

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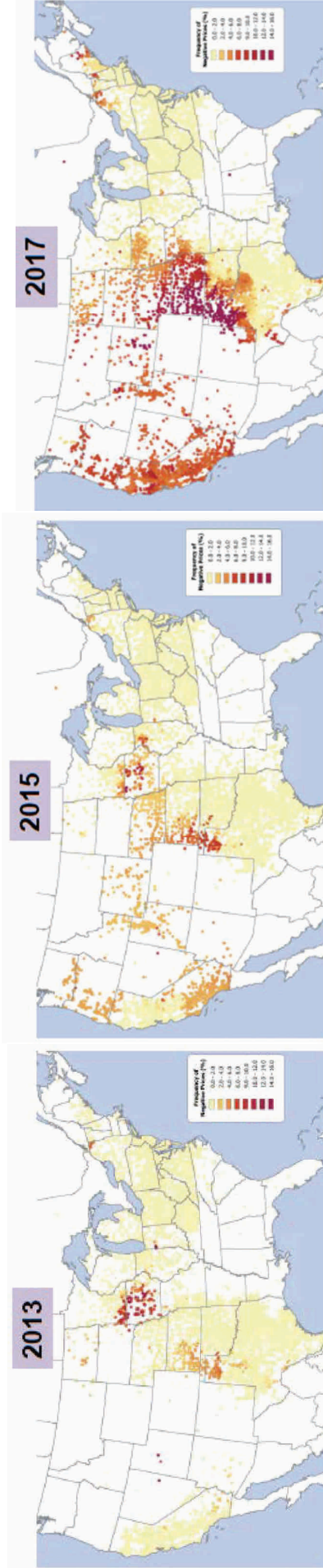


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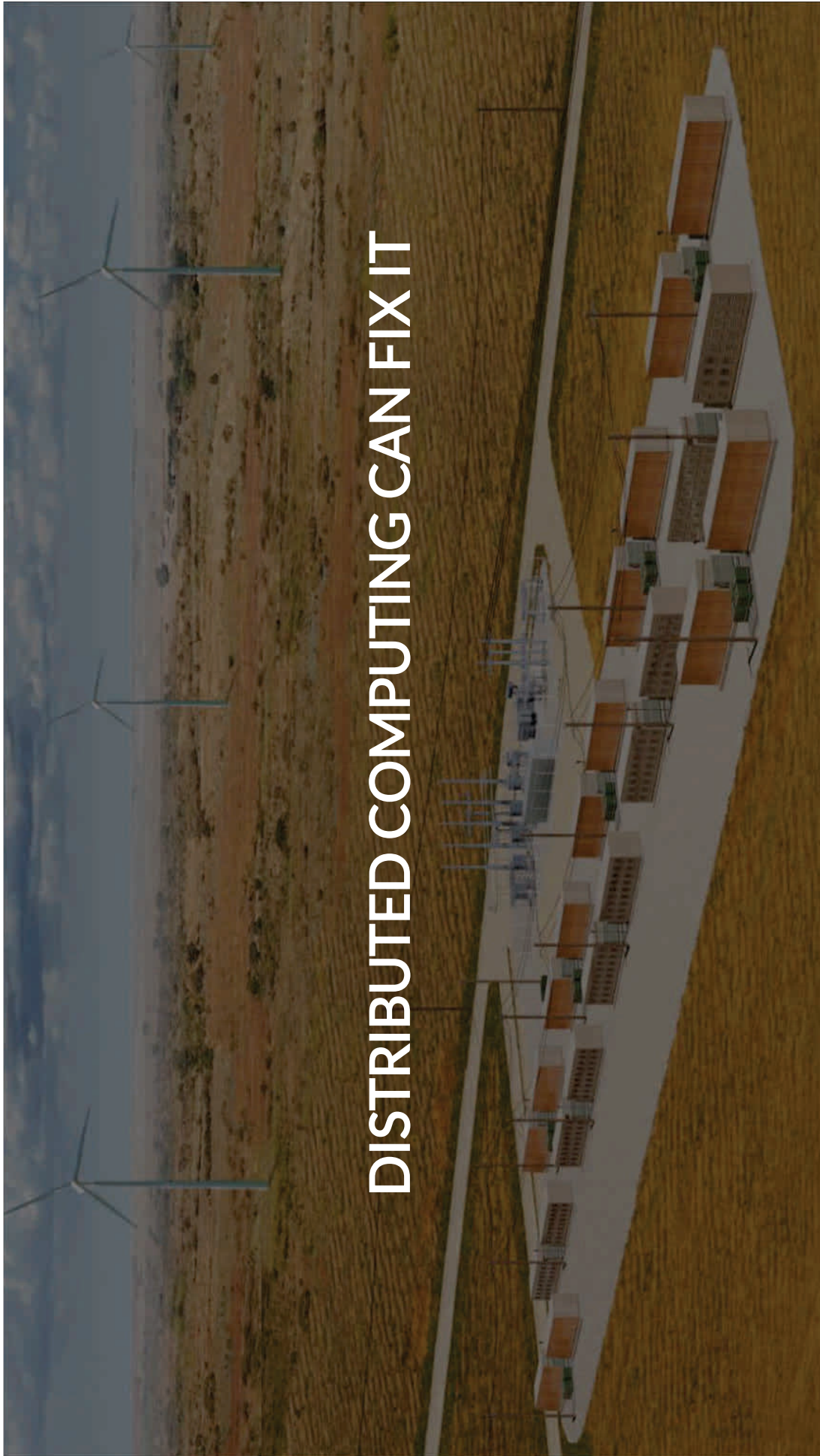
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TOO MUCH GREEN POWER IS OVERWHELMING THE GRID

Incidences of Negative Priced Power



Source: National Renewable Energy Laboratory (NREL)



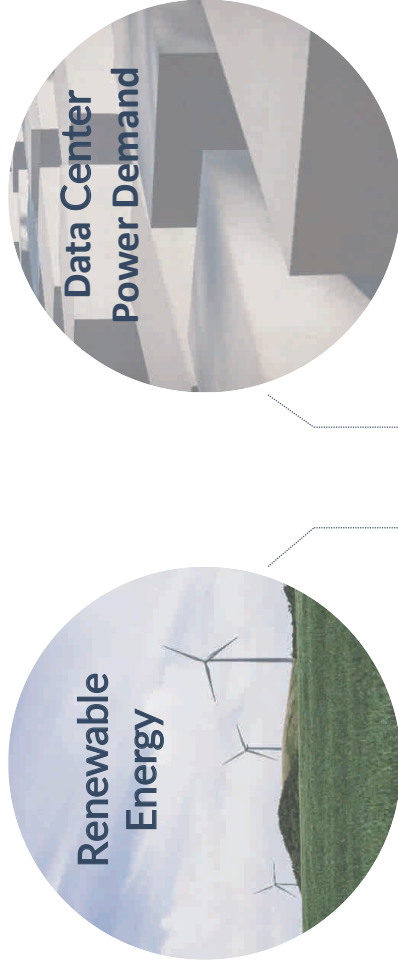
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MOVE TO 100% RENEWABLE GRID

- Renewable generation's share of the power grid will continue to grow
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GROWTH OF PARALLEL COMPUTING

- Exploding demand for perfectly parallel applications
- These applications (ML, AI and simulations) are unaffected by interruptions



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- Steadily increasing demand for more power at ever increasing power densities
- The End of Moore's Law makes electricity the key cost driver

BIOGRAPHIES



Michael McNamara
Co-Founder and Chief Executive Officer

Entrepreneur and private investor with deep experience in the power, energy and technology industries. Previously, Michael covered energy and resources at a number of multi-billion dollar buy side institutions. Michael graduated from Georgetown University magna cum laude with degrees in Finance and Accounting.



Raymond Cline, Ph.D.
Co-Founder and Chief Computing Officer

Dr. Cline has over 38 years of experience in high performance computing, distributed computing, and information technology. He has held research and senior management level positions at Sandia National Laboratories, SAIC, EDS, HP, University of Houston, and CGI. Dr. Cline has a PhD in Chemical Physics.



Jon Cohen
Chief Financial Officer

Highly experienced power and utilities expert with over twenty years experience in the financial services industry. Jon was previously an Investment Banker at Credit Suisse. Jon most recently covered the Power and Utilities sector at Millennium Management.



Joining June, 2019
Andrew Grimshaw, Ph.D.
Chief Software Architect

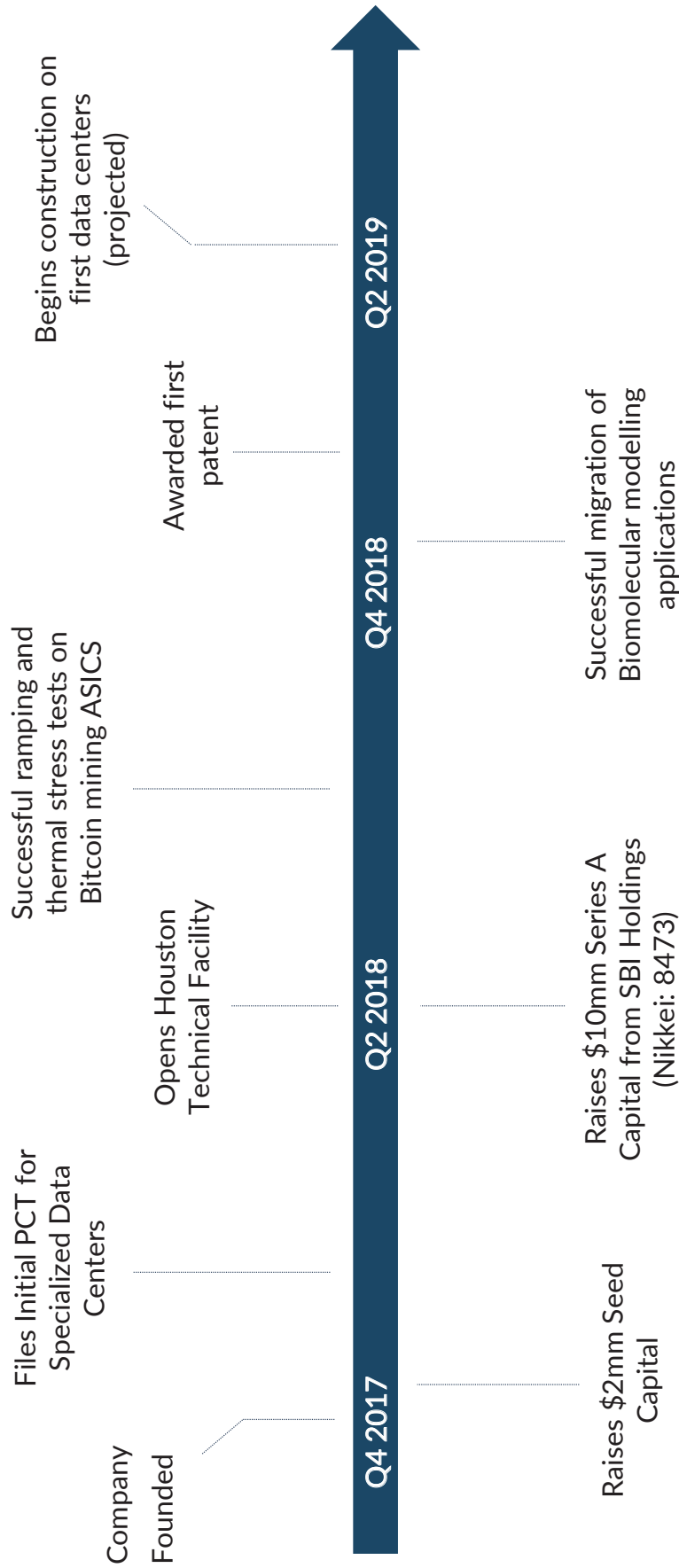
Professor of Computer Science, UVA (on leave). He is the chief designer and architect of Mentat and Legion. In 1999 he co-founded Avaki Corporation, and served as its Chairman and Chief Technical Officer, until 2005 when Avaki was acquired by Sybase.



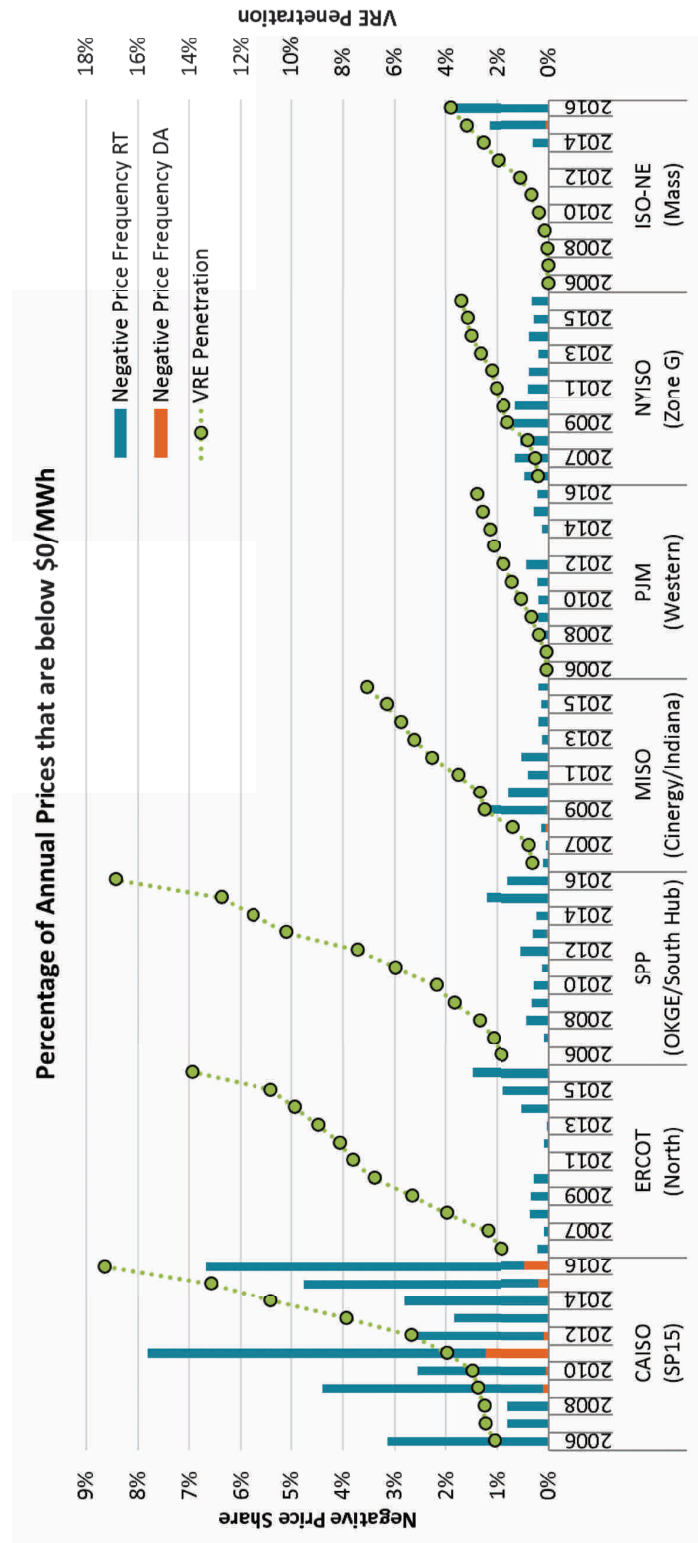
Eric Kutscha
EVP - Operations

Eric has more than 30 years' experience leading electrical engineering and project management of electrical power and control projects. Eric was most recently at Rockwell Automation Intelligent Packaged Power after completing more than 35 years in various sales, engineering, and leadership roles at Siemens.

COMPANY HISTORY AND TIMELINE



THE PROBLEM



Source: UC Berkeley

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DISTRIBUTED COMPUTING IS THE ANSWER

Bring the solution directly to the problem



MORE TRANSMISSION?

- Too expensive
- Cannot get permitted
- No near term projects on horizon in major renewable regions



BATTERY OR STORAGE?

- Currently too expensive
- Shifts availability but not incremental demand
- Price spread in wind corridor does not support construction



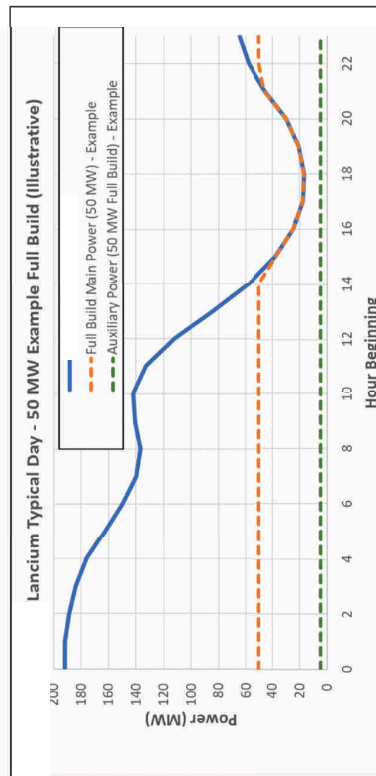
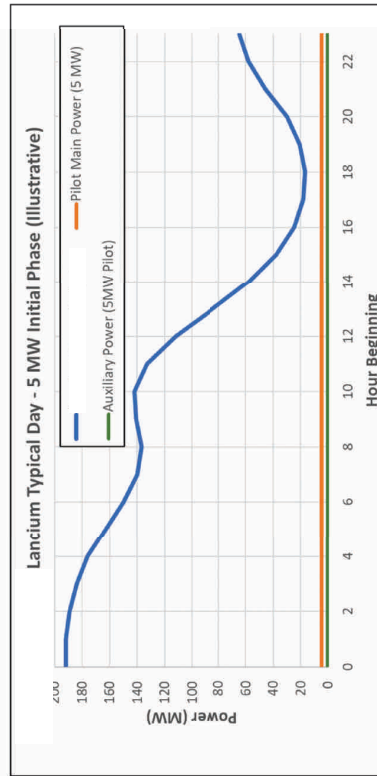
COMPUTE AT THE SOURCE

- Consumes excess power directly from the facility
- Ramps up and down based on power availability and price
- Perfectly suited for parallel computing applications

HOW CAN DISTRIBUTED COMPUTING WORK USING ONLY WIND POWER?

| | |
|----------------------|---|
| Uptime? | Target specific applications and control server power rapidly (utilize intermittent power availability) |
| Lost Work? | Checkpoint application status and move jobs as needed (no redundancy required) |
| Power Surges? | Use software to dynamically control servers (no UPS needed) |
| Temperature Control? | Only run when power is available and inexpensive (no HVAC required) |
| Backup Power? | Not necessary - Lancium computing does not require grid power so no Transmission & Distribution charges |

LANCIUM'S BENEFIT TO THE OPERATOR AND THE GRID



Lancium power consumption follows the generation profile of wind projects

Data centers spin up and down rapidly to match load with power availability and price

Lancium will spin down during periods of high priced power to enable:

- Generator to maximize profit
- Stronger, more resilient Grid
- Reduced data center thermal stress

CHALLENGES ADDRESSED: LANCIMUM MOAT

Multi-disciplined engineering approach

- Fundamental rethinking of data center design, power market structure and computing paradigms
- Addressed via engineering advancements and in-house innovations

✓ **Regulatory and transaction structure**

✓ **Electrical engineering including power factor and harmonics management**

✓ **Software development and individual server control**

✓ **Thermal control and heat resistance insights**



Appx12444



LANCIUM COST ADVANTAGES

Appx12445

CAPITAL COSTS:

- Very inexpensive to site and build
- Minimal real estate value in Wind Corridor
- Entirely air cooled with no expensive HVAC system
- No redundant systems required

OPERATING COSTS:

- World's cheapest power with no transmission and distribution charges
- Excellent Power Use Effectiveness (PUE) with limited parasitic loss
- Flexible clocking ability

LANCIUM COMPETITIVE ADVANTAGES

- Exclusive ability to utilize exceptionally cheap but intermittent renewable power
- In excess of 30 patents filed or in process
- Enables more renewable generation

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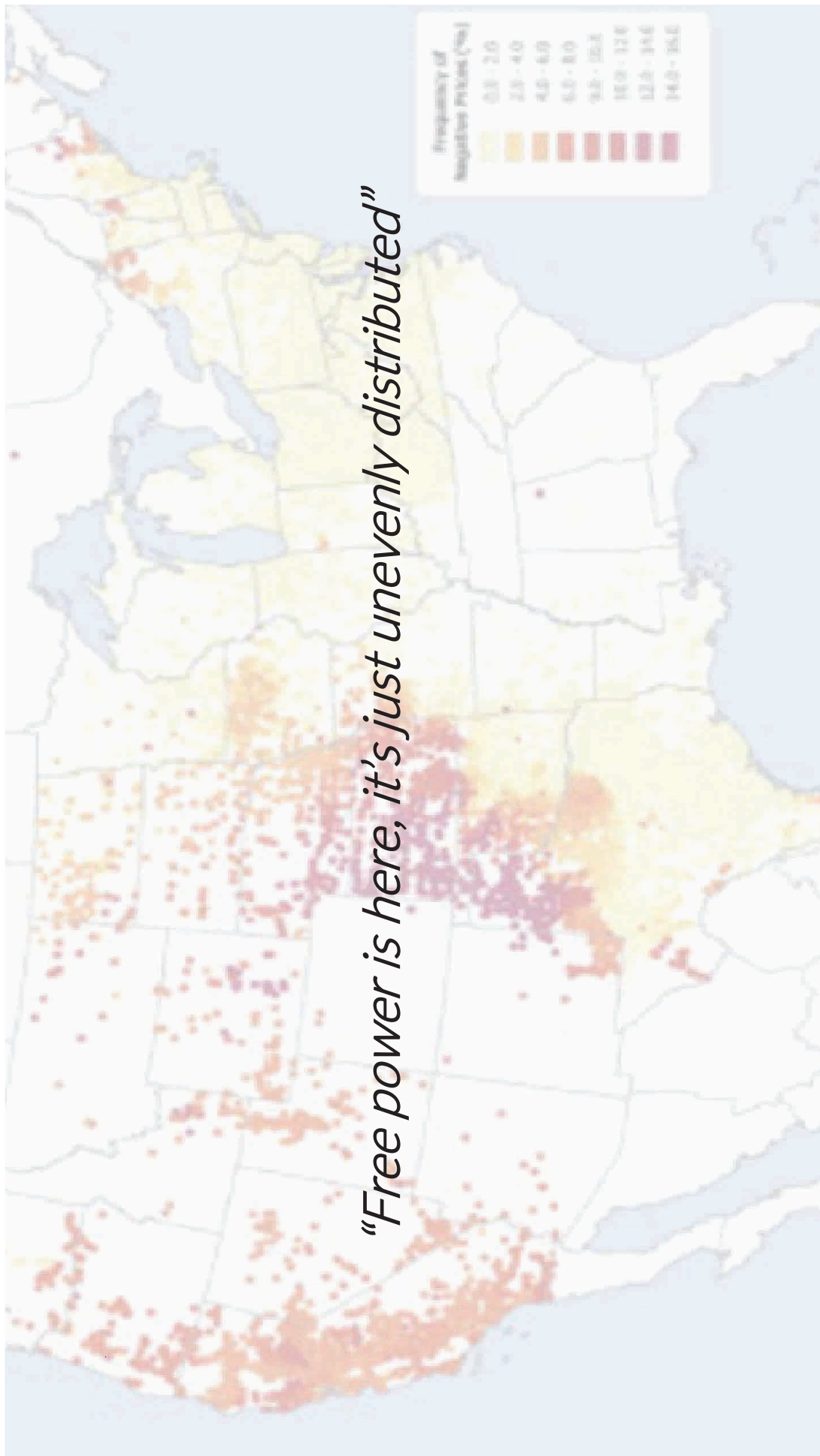


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GO TO MARKET STRATGEY

Appx12447

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CORPORATE STRATEGY

| | |
|------------------------------|---|
| Capture the Potential Market | Lancium has executed term sheets with four of the world's largest power producers covering 100MW+ of power |
| Move Fast... | The company is proceeding with pilot stage projects at each power producer to solidify first mover and power price advantage |
| ...but in a Staged Manner | Pilot stage projects require limited capital with Lancium retaining option to commence commercial stage expansion |
| Up-Sell Rack Space | The data centers will initially be filled with Crypto mining ASICs and backfilled with High Value distributed computing over time |
| Target Long-Term Deals | Lancium plans on signing long term deals for distributed computing with customers in Industry, Government and Academia |

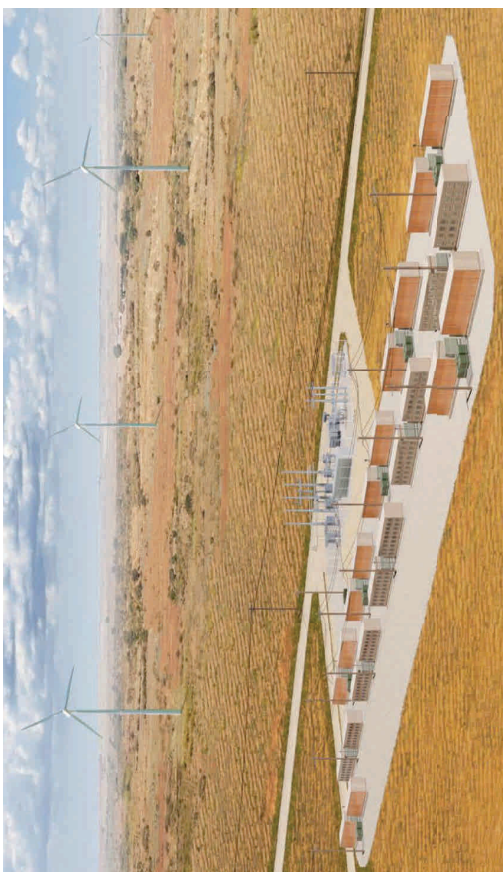
STAGED GROWTH: DATA CENTER LEVEL

Grow footprint to match demand and financing availability

PILOT STAGE: 6MW



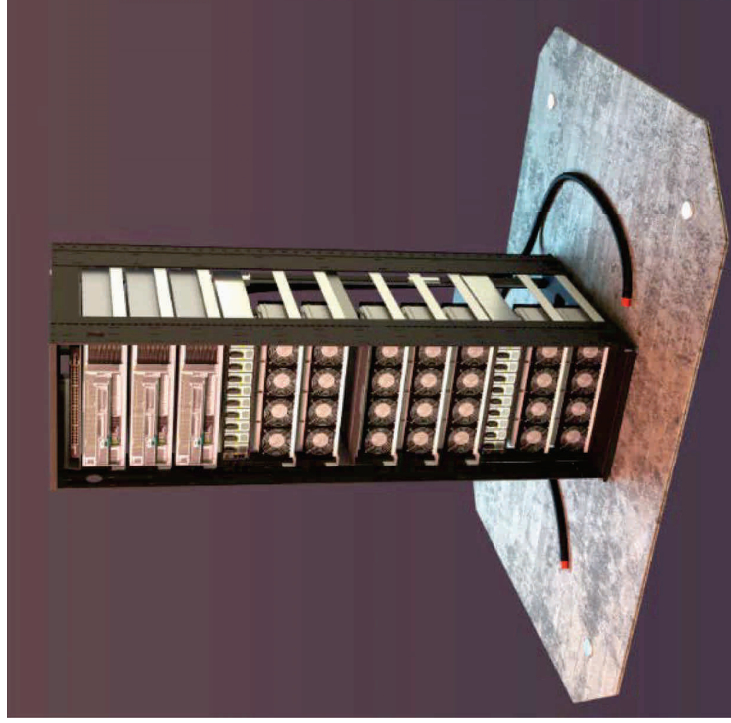
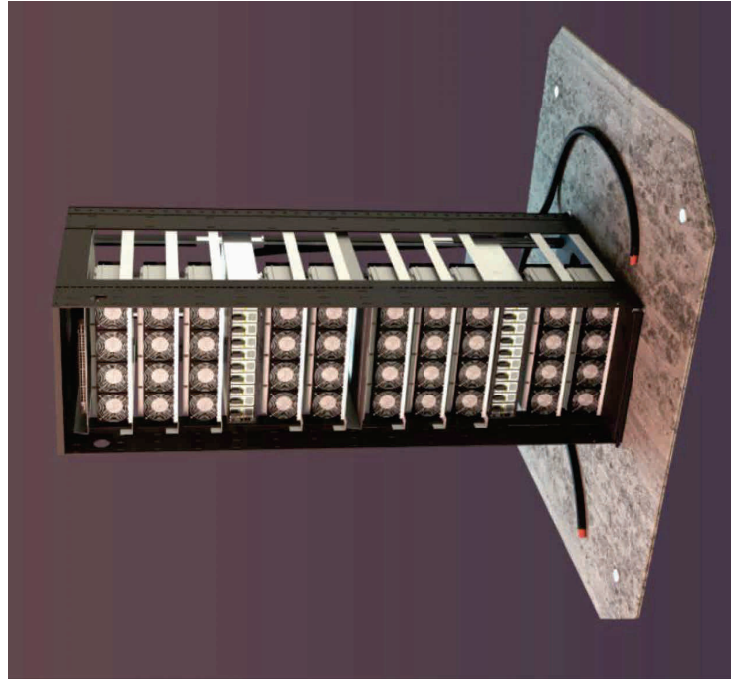
COMMERCIAL STAGE: 35MW



Appx12450

STAGED GROWTH: RACK LEVEL

Distributed computing hardware will displace Crypto ASICs over time



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Requires no sales team and provides immediate revenue

Extremely cheap to install on per KW basis

Crypto ASICs are durable and heat resistant

Requires limited data center fabric and network

Bitcoin mining provides steady margin for those with very low priced power

MARKET STRATEGY FOR CRYPTO RACK SPACE

BULL MARKET

(high ratio of block reward to hash rate)

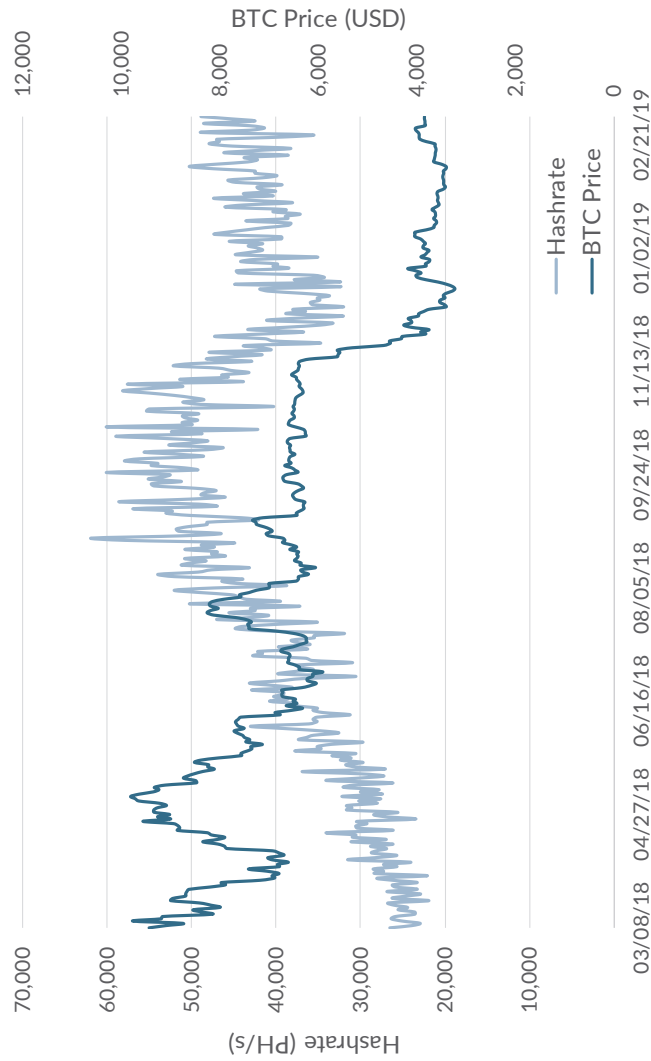
- Enter into multi-year hosting arrangements on existing or new build rack space
- Run legacy merchant machines or bring machines "out of retirement"

BEAR MARKET

(low ratio of block reward to hash rate)

- Purchase machines at very low or scrap value to capitalize on Lancium energy price advantage
- Enter into Vendor Finance arrangements with OEMs

BITCOIN MINING ECONOMIC CONSIDERATIONS



Extremely rational commodity business

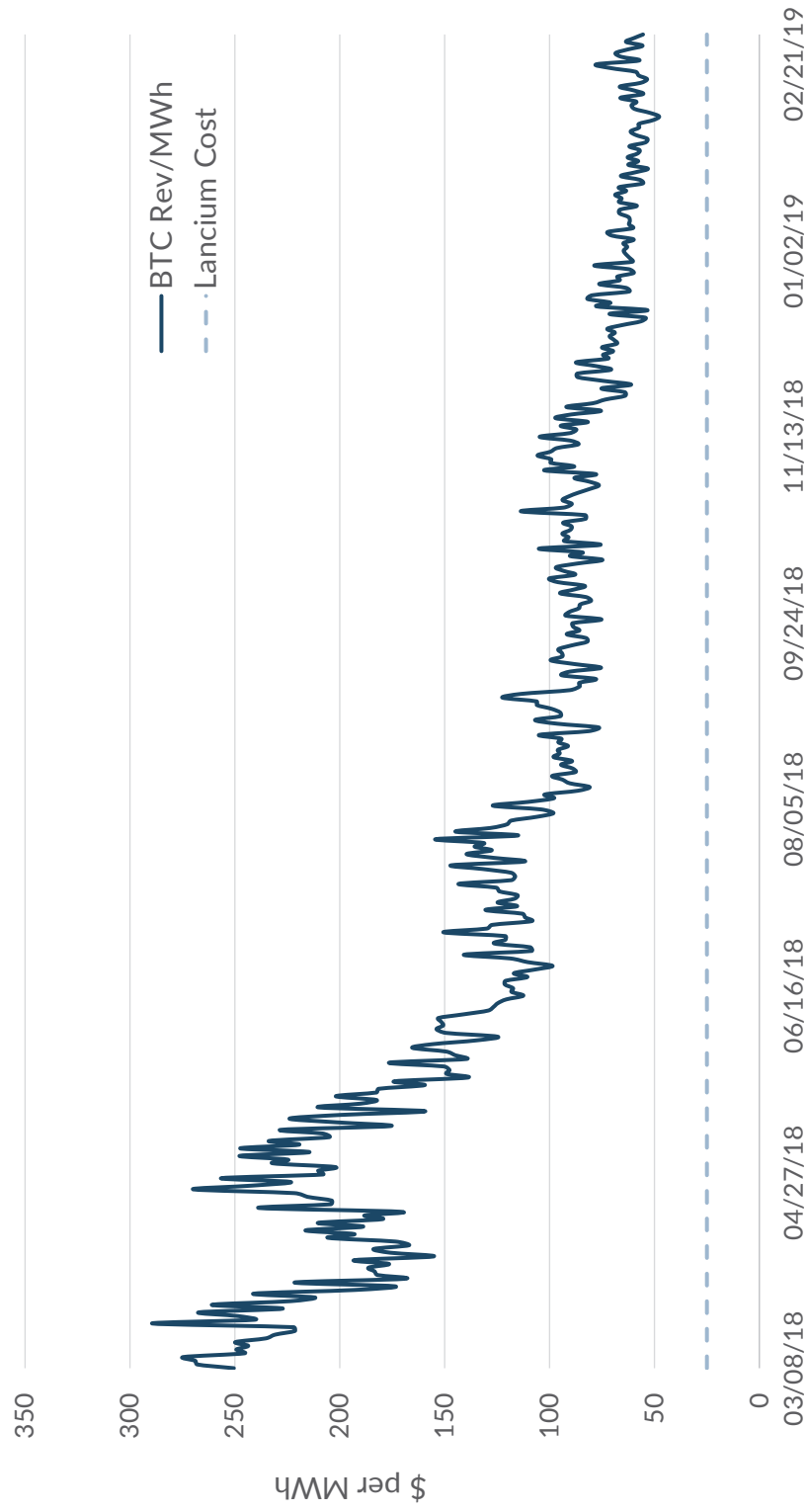
Due to the End of Moore's Law, limited availability to improve ASICs

Operating cost (electricity) is now the key major variable

Bitcoin mining profitability is driven by Bitcoin price, Hash Rate and electricity

Recently, hash rate has been extremely responsive to Bitcoin price moves which creates embedded margin if one has access to very cheap electricity

BTC MINING REVENUE (S9): EMBEDDED MARGIN



AFTER BITCOIN MINING? THE NEXT APPLICATIONS

| | Description | Examples |
|--|--|--|
| High Throughput Computing, <i>(Tightly Coupled)</i> High Performance Computing | Highest value computing for major Government, Industrial and Academic research | Fluid Dynamics, Large Machine Learning Studies, Weather Modelling |
| High Throughput Computing, <i>(Loosely Coupled)</i> | Parallel computing that does not require expensive and complex networking | Monte Carlo Modelling, Small Machine Learning Studies, Image Rendering |
| Low Value Computing | Bitcoin mining will be deployed first due to ease and low capital cost | Proof-of-Work |

TOTAL ADDRESSABLE MARKET

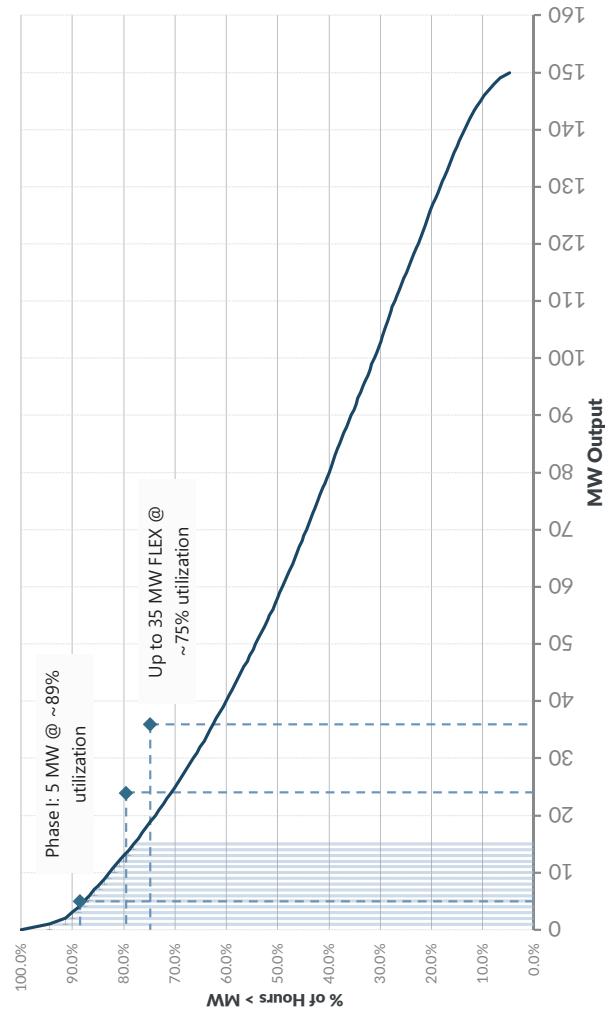
| | Total Addressable Market (USD) | Highly Suited to Lancium % | Highly Suited to Lancium (USD) |
|----------------------------------|--------------------------------|----------------------------|--------------------------------|
| High Performance Computing | \$10 B | 30%+ | \$3 B |
| Cloud and Computing Industries | \$20 B | 25%+ | \$5 B |
| Hyperscale and Consumer Internet | \$20 B | 25%+ | \$5 B |
| Low Value Computing | \$3 B | 100%+ | \$3 B |

Source: NVIDIA, Lancium internal estimates

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WHY WIND? THE DISTRIBUTION OF POWER GENERATION

POWER DURATION CURVE



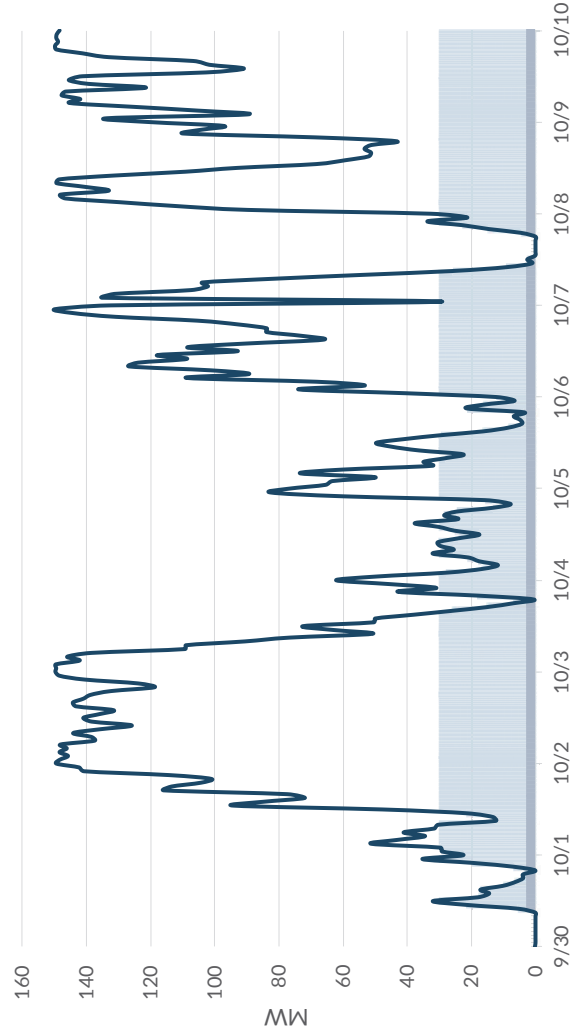
Wind production distribution allows for a tiered data center installation

Lancium deal arrangements call for “first call” on power with high priced hours retained by the generator

Some power is nearly always available to Lancium data centers

Available power is routed to most valuable computing hardware first

WHY WIND? THE DISTRIBUTION OF POWER GENERATION



Low value computing (light blue) will serve as a buffer and absorb the majority of wind power variability

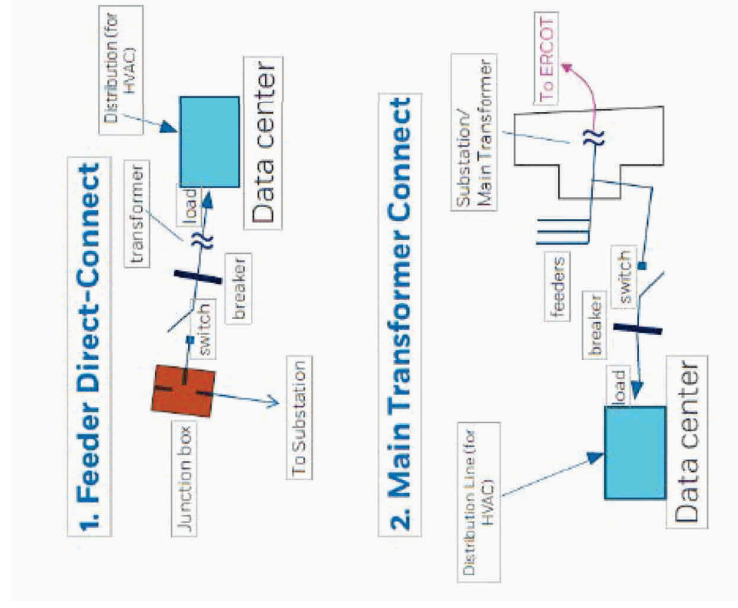
Lancium has proven the resiliency of bitcoin mining hardware to constant and fast ramping

Higher value computing (gray) will receive nearly constant power and will see rare and short periods of downtime

WIND ENGINEERING CONSIDERATIONS

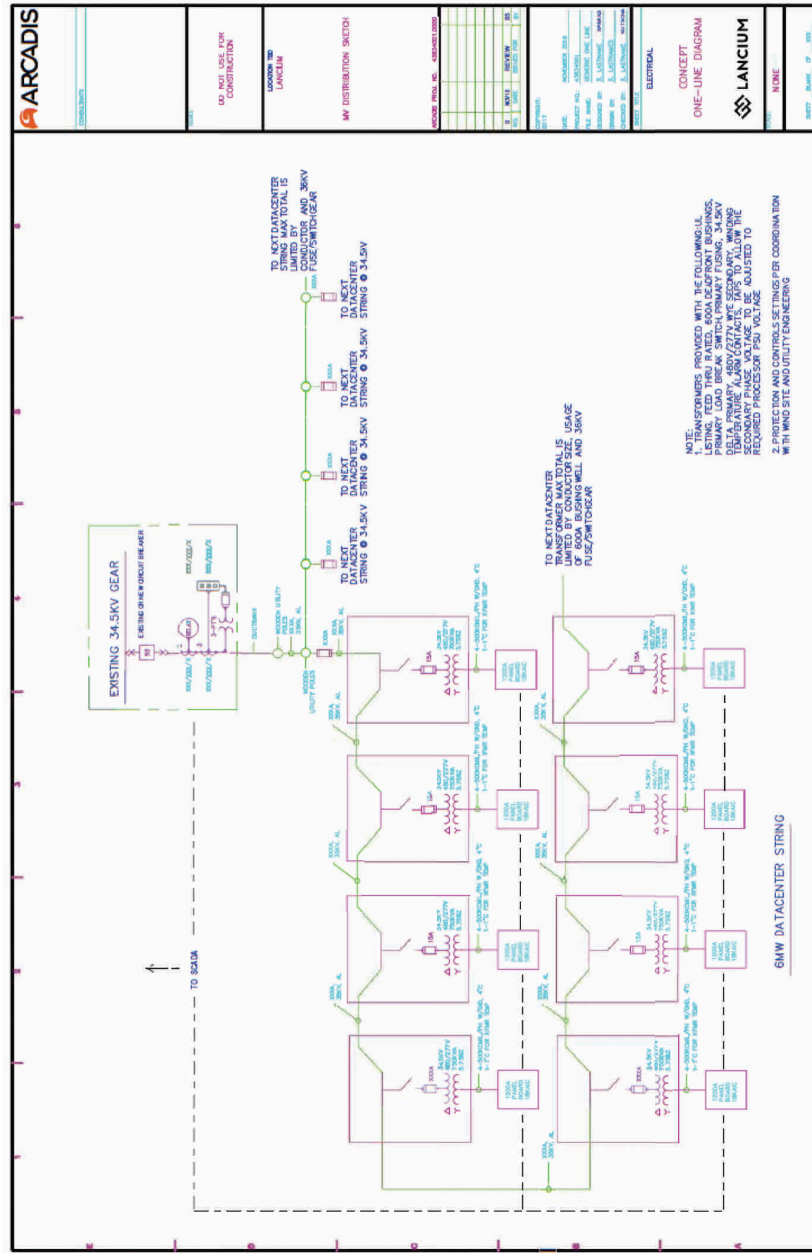
Lancium has developed several interconnection options to fit the needs of its wind partners

- Lancium has worked on two potential options: (1) Feeder Direct-Connect or (2) Main Transformer Connect
- Regardless of approach, Server Facility would be behind a breaker-switch and/or other equipment to enable isolation
- Isolation equipment to be in complete control of wind project (except in cases of curtailment for safety purposes by Lancium)



ILLUSTRATIVE SINGLE LINE DIAGRAM

Conceptual SLD for substation interconnect



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The World's Only Truly Green Computing

"Run cycles at Lancium and help save the planet."

Appx12462

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CONFIDENTIALITY AGREEMENT

This Confidentiality Agreement (this "**Agreement**") is delivered this ____ day of _____, 201__, by and between Lancium, LLC, for itself and on behalf of its affiliates, successors and assigns ("**Lancium**") and _____, for itself and on behalf of its affiliates, successors and assigns ("_____"). Any party receiving information in connection with the Matter shall, together with its affiliates, be considered a "**Receiving Party**" with respect to such information, and any party disclosing information in connection with the Matter shall, together with its affiliates, be considered as a "**Disclosing Party**" with respect to such information. In connection with the [SUBJECT MATTER] (the "**Matter**"), each Receiving Party has requested access to certain information which is either non-public or proprietary in nature. In consideration for and as a condition to a Disclosing Party furnishing such information, each Receiving Party agrees to treat any Confidential Material in accordance with the provisions set forth below, acknowledging the confidential and proprietary nature of such Confidential Material.

As used herein, the term "**Confidential Material**" means any and all information concerning a Disclosing Party, its affiliates and subsidiaries and its customers which is furnished to a Receiving Party or its Representatives by or on behalf of a Disclosing Party (including any information containing, reflecting or generated from such information), whether furnished before or after the date of this Agreement and regardless of the manner in which it is furnished, including but not limited to, information regarding a Disclosing Party's inventions, products, software, trade secrets, know-how, technical information, specifications, original works of authorship, developments, concepts, improvements, designs, discoveries, ideas, processes, techniques, formulas, trademarks, data and other intellectual property, business plans and strategies, existing or proposed bids, technical or engineering developments, existing or proposed research projects, knowledge gained through observation of or access to facilities, financial or business information or projections, employees, investments, marketing plans and strategies, pricing and cost information, negotiation strategies, training information and materials, information, identities, usages or requirements of existing or potential suppliers and customers, and in each case shall include all notes, analyses, memoranda or other writings containing Confidential Material prepared by or on behalf of Receiving Party or its employees, affiliated entities (including officers or directors of such entities), representatives, joint venturers, business partners or agents (collectively the "**Representatives**").

Nothing contained herein shall be construed as restricting disclosure or use of the following information: (a) information which, prior to the time of disclosure by a Disclosing Party, was known to a Receiving Party as evidenced by its written records; (b) information which, at the time of disclosure to a Receiving Party, was in the public domain; (c) information which, after disclosure to a Receiving Party, becomes part of the public domain other than through the fault or negligence of a Receiving Party or its Representatives, or as a result of a breach of this Agreement by the Receiving Party or its Representatives; or (d) information which is disclosed to a Receiving Party in good faith by a third party who was not, nor is not, under any obligation of confidence to Disclosing Party at the time the third party discloses the information to Receiving Party.

It is understood that the Receiving Party may disclose any of the Confidential Material to those Representatives who require such material for the purpose of the Matter (provided that such Representatives shall be informed of the confidential nature of the Confidential Material and shall be bound by the terms and conditions hereof as if they were a party hereto). In any event, each Receiving Party will be responsible for any breach of this Agreement by its Representatives. Each Receiving Party agrees that the Confidential Material will be kept confidential by it and its Representatives and, except with the specific prior written consent of a Disclosing Party or as expressly otherwise permitted by the terms hereof, will not be disclosed by a Receiving Party or its Representatives. Each Receiving Party further agrees that such Receiving Party and its Representatives will not use any of the Confidential Material for any reason or purpose other than for the Matter and that the Confidential Material shall not be used in any way detrimental to a Disclosing Party. Each Receiving Party also agrees to be responsible for enforcing the confidentiality of the Confidential Material and agrees to take such action, legal or otherwise, to the extent necessary to prevent any disclosure of the Confidential Material by any of its Representatives.

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| |
|--|
| Bearbox v Lancium Trial Exhibit TX750 |
|--|

Without the prior written consent of a Disclosing Party, neither a Receiving Party nor its Representatives will disclose to any person (i) the fact that the Confidential Material has been made available to it or that a Receiving Party has inspected any portion of the Confidential Material, or (ii) the fact that any discussions are taking place in connection with the Matter, or relating to a possible relationship with a Receiving Party, including the status thereof.

In the event that a Receiving Party or any of its Representatives become legally compelled (by oral questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process) to make any disclosure which is prohibited or otherwise constrained by this Agreement, such Receiving Party or such Representative, as the case may be, will (i) provide the Disclosing Party with prompt notice of such request(s) so that it may seek an appropriate protective order or other appropriate remedy and/or waive the Receiving Party's or such Representative's compliance with the provisions of this Agreement and (ii) cooperate with the Disclosing Party (at the Disclosing Party's expense) in its efforts to decline, resist or narrow such requests. In the event that such protective order or other remedy is not obtained and a Receiving Party or any its Representatives is compelled to disclose any of the Confidential Material, (i) only that portion of the Confidential Material that is legally required to be disclosed shall be furnished by the Receiving Party and (ii) the Receiving Party shall use its best efforts to obtain (or to cooperate with the Disclosing Party in its efforts to obtain) an order or other reliable assurance that confidential treatment will be accorded any Confidential Material so disclosed.

If a Receiving Party determines that it does not wish to proceed with a relationship or transaction related to the Matter, it shall promptly notify the Disclosing Party of such decision. At such time, or at any time upon the written request of a Disclosing Party, the Receiving Party shall (a) promptly destroy all copies of the Disclosing Party's written Confidential Material in the Receiving Party's possession and direct its Representatives to destroy any written Confidential Material in its possession, (b) cause the deletion from all immediately accessible computer storage systems of any electronic versions of the Confidential Material, and (c) promptly destroy all analyses, compilations, summaries, studies and other material prepared by the Receiving Party or its Representatives which are based in whole or in part on, or otherwise containing or reflecting any of, the Confidential Material. An officer of the Receiving Party shall certify any such destruction to the Disclosing Party in writing. Notwithstanding the foregoing, a Receiving Party shall be permitted to retain an electronic copy of any Confidential Material in compliance with any bona fide, preexisting records retention policy solely for archival purposes. Any Confidential Material that is not so destroyed, including without limitation any oral Confidential Material, shall remain subject to the confidentiality and other obligations set forth in this Agreement.

Each Receiving Party understands that neither a Disclosing Party nor its Representatives or agents make any representation or warranty (express or implied) as to the accuracy or completeness of the Confidential Material. Each Receiving Party agrees that neither a Disclosing Party nor its Representatives or agents shall have any liability to a Receiving Party or any of its Representatives resulting from the use of the Confidential Material by the Receiving Party or such Representatives. The agreements set forth in this paragraph may be modified or waived only by a separate writing signed by the Disclosing Party and the Receiving Party expressly so modifying or waiving such agreements.

Each Receiving Party acknowledges that money damages would be both incalculable and an insufficient remedy for any breach of this Agreement by it or its Representatives and that any such breach would cause the Disclosing Party irreparable harm. Accordingly, each Receiving Party agrees that in the event of any breach or threatened breach of this Agreement, the Disclosing Party shall be entitled, without the requirement of posting a bond or other security, to equitable relief, including injunctive relief and specific performance. Such remedy shall not be the exclusive remedy for any breach of this Agreement but shall be in addition to all other remedies available at law or equity to a Disclosing Party.

The confidentiality restrictions imposed hereby shall continue for a period of two (2) years from the date of this Agreement. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.

It is understood and agreed that no failure or delay by a Disclosing Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege hereunder. If at any time the duration, scope, area or restrictions in this Agreement are found to be invalid, unreasonable or unenforceable under circumstances then existing, the parties agree that the maximum duration, scope, area or restrictions which are valid, reasonable and enforceable under such circumstances shall be substituted for the stated duration, scope, area or restrictions and that a court shall be allowed and directed to revise the terms contained herein to cover the maximum duration, scope, area and restriction permitted by law. If a court declines to amend this Agreement as provided herein, the invalidity of any one or more of the words, phrases, sentences, clauses or sections contained in this Agreement shall not affect the enforceability of the remaining portions of this Agreement or any part thereof, all of which are separate and independent and inserted conditionally on their being valid in law, and, in the event that any one or more of the words, phrases, sentences, clauses, paragraphs or sections contained in this Agreement shall be declared invalid, this Agreement shall be construed as if such invalid word or words, phrase or phrases, sentence or sentences, clause or clauses, paragraph or paragraphs, or section or sections had not been inserted.

This Agreement may be executed in counterparts, each of which shall be deemed an original and both of which, taken together, shall constitute one and the same instrument. Signatures for the parties transmitted by facsimile or other electronic means shall be deemed to be their original signatures for any purpose whatsoever.

IN WITNESS WHEREOF, each of the undersigned hereby executes this Confidentiality Agreement as of the date set forth above.

LANCIUM, LLC

By: _____
Print Name: _____
Its: _____

[NAME OF ENTITY]

By: _____
Print Name: _____
Its: _____

From: Michael McNamara <michael.mcnamara@lancium.com>
To: Ian Rock <ian.rock@lancium.com>, Raymond Cline <recline@lancium.com>
Subject: Fwd: FW: ERCOT Energy Curves Have Been Updated
Date: Wed, 14 Aug 2019 11:48:54 -0500
Importance: Normal
Attachments: Lancium_August_2019_Renewal_-_24_months.docx

We can fix our power price at 34.62 for 1.3 mw for 24 months. This would allow us to capture all that revenue above that level once we spin down.

Any objections or thoughts?

----- Forwarded message -----
From: **Todd Wilson** <Todd.Wilson@calpinesolutions.com>
Date: Wed, Aug 14, 2019 at 11:45 AM
Subject: RE: FW: ERCOT Energy Curves Have Been Updated
To: Michael McNamara <michael.mcnamara@lancium.com>
CC: Joe Nesser <Joe.Nesser@calpinesolutions.com>

Michael,

Attached is a contract for the fixed price of \$34.62, 24 months, 1.3 MW ATC.

Best Regards,

Todd

Todd Wilson

Cell: (919) 414-7986

From: Michael McNamara [mailto:michael.mcnamara@lancium.com]
Sent: Wednesday, August 14, 2019 11:29 AM
To: Todd Wilson <Todd.Wilson@calpinesolutions.com>
Subject: Re: FW: ERCOT Energy Curves Have Been Updated

External Sender: Use caution with links/attachments.

Let's do 24 month please

On Wed, Aug 14, 2019 at 11:24 AM Todd Wilson <Todd.Wilson@calpinesolutions.com> wrote:

Pricing just came in for our desk: pricing is fixed price energy only, all other costs pass-through at cost. Due to your historical usage the most we can fix in terms of volume is 1.3 MW's for now, we can add to that as your load increases.

| |
|--|
| Bearbox v Lancium Trial Exhibit TX756 |
|--|

Pricing is for start date of August 16th.

1.3 MW fixed price round the clock for 24 months = \$ 34.62 per Mwhr.

1.3 MW fixed price round the clock for 36 months = \$ 34.53 per Mwhr.

Let me know what you think.

Best Regards,

Todd

Todd Wilson

Cell: (919) 414-7986

From: Michael McNamara [mailto:michael.mcnamara@lancium.com]

Sent: Wednesday, August 14, 2019 8:45 AM

To: Todd Wilson <Todd.Wilson@calpinesolutions.com>

Subject: Re: FW: ERCOT Energy Curves Have Been Updated

External Sender: Use caution with links/attachments.

Ok

On Wed, Aug 14, 2019 at 7:38 AM Todd Wilson <Todd.Wilson@calpinesolutions.com> wrote:

Will have pricing for you today but as you can see pricing has gone up \$1.00 for the 24 month term. I will speak with the wholesale desk to see how the market is shaping up for later today.

Best Regards,

Todd

Todd Wilson

Cell: (919) 414-7986

From: Mark Ruggles

Sent: Wednesday, August 14, 2019 7:32 AM

To: CS ERCOT Desk <CSERCOTDesk@calpinesolutions.com>; CS ERCOT Sales Team

<CSERCOTSalesTeam@CalpineSolutions.com>; Ercot_desk@champion.energy; CES.Dept_DL-C&I@calpine.com; Marcus Dotson <MDotson@cavallotspp.com>; jattkisson@cavallotspp.com; tdortch@cavallotspp.com; LuAnn Morgan <lmorgan@cavallotspp.com>; Byron Gannaway <BGannaway@cavallotspp.com>; Patricia Young <pyoung@cavallotspp.com>

Subject: ERCOT Energy Curves Have Been Updated

| Price Change Since Last Upload \$/MWh | | | | |
|---|-----------|----------|-----------|----------|
| between Tue, Aug 13, 2019 5:35 PM (Pacific) | | | | |
| and Wed, Aug 14, 2019 7:31 AM (Pacific) | | | | |
| Term | North Hub | Hous Hub | South Hub | West Hub |
| 3 Mo | 0.48 | 0.48 | 0.48 | 0.48 |
| 6 Mo | 0.41 | 0.41 | 0.41 | 0.41 |
| 12 Mo | 1.36 | 1.36 | 1.36 | 1.36 |
| 24 Mo | 1.00 | 1.00 | 1.00 | 1.00 |
| 36 Mo | 0.88 | 0.88 | 0.88 | 0.88 |
| 48 Mo | 0.78 | 0.78 | 0.78 | 0.78 |
| 60 Mo | 0.72 | 0.72 | 0.72 | 0.72 |

| Day-over-Day Price Change \$/MWh | | | | |
|--|-----------|----------|-----------|----------|
| between Tue, Aug 13, 2019 12:00 AM (Pacific) | | | | |
| and Wed, Aug 14, 2019 7:31 AM (Pacific) | | | | |
| Term | North Hub | Hous Hub | South Hub | West Hub |
| 3 Mo | 0.48 | 0.48 | 0.48 | 0.48 |
| 6 Mo | 0.41 | 0.41 | 0.41 | 0.41 |
| 12 Mo | 1.36 | 1.36 | 1.36 | 1.36 |
| 24 Mo | 1.00 | 1.00 | 1.00 | 1.00 |
| 36 Mo | 0.88 | 0.88 | 0.88 | 0.88 |
| 48 Mo | 0.78 | 0.78 | 0.78 | 0.78 |
| 60 Mo | 0.72 | 0.72 | 0.72 | 0.72 |

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(917) 833-2720

**ADDENDUM FOR FIXED PRICE, FIXED VOLUME ELECTRICITY
with Settlement Interval Balancing (ERCOT)**

Reference:
ELECTRICITY SALES AND PURCHASE AGREEMENT
Between Calpine Energy Solutions, LLC ("Seller")
And LANCIUM LLC ("Buyer")
As of June 18, 2018 ("Effective Date")
Addendum Date: August 14, 2019

This Addendum (the "Addendum") supplements the Electricity Sales and Purchase Agreement referred to above (the "Agreement"). The Parties hereby agree to the terms and conditions set forth herein for Buyer's Facilities served at the Delivery Point. Capitalized terms not otherwise defined in this Addendum shall have their meanings set forth elsewhere in the Agreement, including its Appendices.

1. PRODUCT:

Contract Prices for Electricity set forth in this Addendum include each component identified in the table set forth below that is indicated by an [X], which are referred to collectively in this Addendum as "Electricity."

| ELECTRICITY: | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | Electric Energy |
| <input type="checkbox"/> | Ancillary Services (Reg-Up, Reg-Down, Responsive Reserve, and Non-Spin) |
| <input type="checkbox"/> | ISO QSE/SC Charges and Fees |
| <input type="checkbox"/> | RUC Make-Whole Uplift, RUC Clawback, and RUC Decommitment |
| <input type="checkbox"/> | Distribution/Transmission Losses/UFE (collectively, "Line Losses") |
| <input type="checkbox"/> | Locational Basis |

2. DELIVERY PERIOD:

This Addendum shall be in full force and effect as of the Addendum Date. The terms set forth herein shall apply from the Start Date through the End Date:

| Start Date: | End Date: |
|-----------------|---------------|
| August 16, 2019 | July 31, 2021 |

3. DELIVERY POINT:

| Market Area | Supply Point | Delivery Point |
|-------------|---------------------|-------------------|
| ERCOT | Houston Trading Hub | Houston Load Zone |

4. PRICING:

4.1 Contract Price. For each settlement interval, Buyer shall pay the following Contract Price per MWh for the Contract Quantity of Electricity set forth in the table below:

| Contract Price (in US\$/MWh) |
|------------------------------|
| \$34.62 |

The Contract Price set forth above includes only the components set forth in Section One of this Addendum that are marked with an [X]. All other charges shall be passed through directly to Buyer. The Contract Price reflects the value related to Congestion Revenue Rights.

4.2 Monthly Settlement. Buyer's invoice shall reflect charges based on Buyer's usage as set forth below. If Line Losses are not included in Section 1, Buyer's metered usage shall be adjusted for Line Losses. If Line Losses are included in Section 1, the Excess Quantity shall be adjusted for Line Losses.

4.2.1 During any settlement interval, if Buyer's usage exceeds the Contract Quantity set forth below ("Excess Quantity"), Buyer shall pay Seller the real-time price for energy and all related delivery charges, as determined by ERCOT at the Delivery Point, plus \$1.00 per MWh for the Excess Quantity. Buyer shall also pay RUC capacity short charges on the Excess Quantity. For the purpose of determining RUC capacity short charges, Buyer acknowledges that the ERCOT real time market will be considered the source for all of the Excess Quantity.

4.2.2 During any settlement interval, if Buyer's usage is less than the Contract Quantity as set forth below ("Deficit Quantity"), Seller shall credit Buyer's account by an amount equal to the Deficit Quantity multiplied by the real-time price for energy as determined by ERCOT at the Delivery Point.

4.3 Locational Basis. Locational Basis shall be calculated each settlement interval as an amount equal to the real time settlement point price at the Delivery Point less the real time settlement point price at the Supply Point. If the Locational Basis component is not marked as included in Section 1 above, Locational Basis shall be added to the

Contract Price. If the Locational Basis component is not marked as included and Line Losses are marked as included in Section 1, Locational Basis shall be adjusted by the appropriate loss factor.

4.4 Changes in Circumstances

4.4.1 The Contract Price and all other terms and conditions of this Addendum are established in reliance on the accuracy of information provided to Seller concerning Buyer's load requirements. Any incremental costs incurred by Seller as a result of inaccuracies in any such information provided to Seller may be passed through to Buyer.

4.4.2 The Contract Price and all other terms and conditions of this Addendum are established in reliance on the existing Laws, rates, charges, independent system operator processes, market structure, congestion zone design and protocols that are in effect as of the Addendum Date. In the event of changes in the above that cause additional costs to Seller, Seller may pass through such costs to Buyer.

5. **CONTRACT QUANTITY:**

Seller shall service 100% of Buyer's Electricity requirements at Buyer's Facilities. The Contract Quantities for this Transaction are set forth below:

| The Contract Price relates to the Contract Quantities at (choose one) <input checked="" type="checkbox"/> the Delivery Point <input type="checkbox"/> Buyer's Meter | | | |
|--|-----------------------------|-----------------------------|----------------------------|
| Contract Quantity* | | | |
| Month | 5x16 Contract Quantity (MW) | 2x16 Contract Quantity (MW) | 7x8 Contract Quantity (MW) |
| 8/2019 | 1.30 | 1.30 | 1.30 |
| 9/2019 | 1.30 | 1.30 | 1.30 |
| 10/2019 | 1.30 | 1.30 | 1.30 |
| 11/2019 | 1.30 | 1.30 | 1.30 |
| 12/2019 | 1.30 | 1.30 | 1.30 |
| 1/2020 | 1.30 | 1.30 | 1.30 |
| 2/2020 | 1.30 | 1.30 | 1.30 |
| 3/2020 | 1.30 | 1.30 | 1.30 |
| 4/2020 | 1.30 | 1.30 | 1.30 |
| 5/2020 | 1.30 | 1.30 | 1.30 |
| 6/2020 | 1.30 | 1.30 | 1.30 |
| 7/2020 | 1.30 | 1.30 | 1.30 |
| 8/2020 | 1.30 | 1.30 | 1.30 |
| 9/2020 | 1.30 | 1.30 | 1.30 |
| 10/2020 | 1.30 | 1.30 | 1.30 |
| 11/2020 | 1.30 | 1.30 | 1.30 |
| 12/2020 | 1.30 | 1.30 | 1.30 |
| 1/2021 | 1.30 | 1.30 | 1.30 |
| 2/2021 | 1.30 | 1.30 | 1.30 |
| 3/2021 | 1.30 | 1.30 | 1.30 |
| 4/2021 | 1.30 | 1.30 | 1.30 |
| 5/2021 | 1.30 | 1.30 | 1.30 |
| 6/2021 | 1.30 | 1.30 | 1.30 |
| 7/2021 | 1.30 | 1.30 | 1.30 |

*As used in the table above, (i) "5x16" means hours ending ("HE") HE 7:00 through HE 22:00 CPT Monday through Friday, excluding NERC holidays, (ii) "2x16" means HE 7:00 through HE 22:00 CPT Saturday, Sunday and NERC holidays, and (iii) "7x8" means HE 1:00 through HE 6:00 and HE 23:00 through HE 24:00 CPT Monday through Sunday.

6. **CUSTOMER PROTECTION RULES:**

To the extent permitted by law, Buyer hereby waives its rights set forth in the Customer Protection Rules enacted by the Public Utility Commission of Texas (Texas Substantive Rules, Section 25.471, et seq.).

As supplemented by this Addendum including its Schedules, if any, all other Terms and Conditions contained in the Agreement remain in full force and effect.

| |
|--|
| This Addendum is subject to the Schedule(s) identified below: |
| |

CALPINE ENERGY SOLUTIONS, LLC

LANCIUM LLC

Sign: _____

Sign: _____

Print: _____

Print: _____

Title: _____

Title: _____

From: Todd Wilson <Todd.Wilson@calpinesolutions.com>

To: Michael McNamara <michael.mcnamara@lancium.com>, Raymond Cline
<recline@lancium.com>

CC: Rachel Arndt <rachel.arndt@lancium.com>, ian.rock <ian.rock@lancium.com>

Subject: RE: Calpine forecast for CP days

Date: Mon, 5 Aug 2019 22:04:12 +0000

Inline-Images: image001.png

Michael,

Your contract is currently on month to month, which is index pricing. Jon wanted to look at a 2 year fixed pricing for your load given how close we are to all time historical lows in ERCOT South. Pricing below is for 2 years starting August 1.

I was arranging Jon to speak with our credit department to get an update on our original credit approval....need to take care of this if you want to look at locking in this low price for 24 months. Current pricing is \$32.08. Let me know what you would like to do.



Best Regards,

Todd

Bearbox v Lancium
Trial Exhibit
TX758

Todd Wilson
Cell: (919) 414-7986

From: Michael McNamara [mailto:michael.mcnamara@lancium.com]
Sent: Monday, August 5, 2019 4:17 PM
To: Raymond Cline <recline@lancium.com>
Cc: Rachel Arndt <rachel.arndt@lancium.com>; ian.rock <ian.rock@lancium.com>; Todd Wilson <Todd.Wilson@calpinesolutions.com>
Subject: Re: Calpine forecast for CP days

External Sender: Use caution with links/attachments.

Hello Todd,

Jon Cohen is no longer with Lancium. Could you please be sure to send all relevant information to everyone on this email instead?

Feel free to give me a call anytime.

Best Regards,
Michael

On Mon, Aug 5, 2019 at 5:15 PM Raymond Cline <recline@lancium.com> wrote:

All,

Has anyone received the Calpine forecast for CP days for this week? If so, could you please forward it? We are trying to manage power usage appropriately, but I'd like to know if we are looking at higher demands later in the week.

Cheers,
Ray

Raymond E. Cline Jr., PhD
Chief Computing Officer

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(917) 833-2720

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From: Todd Wilson <Todd.Wilson@calpinesolutions.com>
To: "Michael McNamara " <michael.mcnamara@lancium.com>
Subject: Weighted Average Cost of Energy (WACOE) - if you fix power at \$33 and sell back at any price over \$100.
Date: Tue, 6 Aug 2019 19:51:10 +0000
Attachments: Lancium_Sellback_Sensitivity_Analysis.xlsx
Inline-Images: image001.png

Michael,

Results of the look-back are impressive...reduce your WACOE by \$10.53 per megawatt hour

Best Regards,

Todd

Todd R. Wilson, CEM
Sales Director, Calpine Energy Solutions

Cell: 919-414-7986

E-Mail: todd.wilson@calpinesolutions.com



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| |
|--|
| Bearbox v Lancium Trial Exhibit TX763 |
|--|

Lancium Hypothetical Invoice

| | | |
|----|----------|---------------------------------|
| \$ | 33.00 | Contract Price |
| | 2,928 | Contract MWh - June - July 2019 |
| \$ | 96,624 | Original Invoice |
| | 86 | Sellback MWh |
| \$ | (32,761) | Sellback Value |
| \$ | 63,863 | Revised Invoice |
| \$ | 22.47 | Revised WACOE |
| \$ | 10.53 | WACOE improvement (detriment) |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|----|-----------|----------|--------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-------------|-------------|-----------|----------|----------|----------|----------|----------|----------|----------|
| 1 | \$ | 100.00 | RT threshold | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | | 2.000 | Contract Size (KW) | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 8/1/2019 | \$ 14.44 | \$ 12.79 | \$ 12.35 | \$ 11.51 | \$ 11.87 | \$ 13.82 | \$ 14.52 | \$ 16.85 | \$ 18.18 | \$ 19.34 | \$ 26.44 | \$ 37.99 | \$ 57.69 | \$ 88.23 | \$ 37.99 | \$ 57.69 | \$ 88.23 | \$ 37.99 | \$ 57.69 | \$ 88.23 | \$ 37.99 | \$ 57.69 | \$ 88.23 | \$ 37.99 | \$ 57.69 |
| 6 | 8/2/2019 | \$ 15.51 | \$ 14.12 | \$ 13.51 | \$ 11.89 | \$ 11.99 | \$ 15.13 | \$ 17.69 | \$ 18.37 | \$ 19.72 | \$ 26.58 | \$ 31.26 | \$ 54.56 | \$ 87.77 | \$ 31.26 | \$ 54.56 | \$ 87.77 | \$ 31.26 | \$ 54.56 | \$ 87.77 | \$ 31.26 | \$ 54.56 | \$ 87.77 | \$ 31.26 | \$ 54.56 | \$ 87.77 |
| 7 | 8/3/2019 | \$ 17.17 | \$ 15.35 | \$ 14.53 | \$ 14.36 | \$ 15.44 | \$ 15.97 | \$ 16.45 | \$ 17.32 | \$ 18.36 | \$ 19.83 | \$ 21.07 | \$ 22.08 | \$ 24.96 | \$ 24.64 | \$ 28.10 | \$ 32.25 | \$ 40.59 | \$ 47.82 | \$ 48.82 | \$ 34.57 | \$ 20.58 | \$ 23.55 | \$ 25.68 | \$ 23.55 | \$ 25.68 |
| 8 | 8/4/2019 | \$ 20.08 | \$ 19.37 | \$ 18.76 | \$ 18.70 | \$ 18.88 | \$ 18.12 | \$ 17.83 | \$ 18.55 | \$ 19.11 | \$ 20.65 | \$ 23.44 | \$ 25.87 | \$ 26.80 | \$ 33.37 | \$ 54.78 | \$ 106.23 | \$ 108.00 | \$ 48.82 | \$ 34.57 | \$ 20.58 | \$ 23.55 | \$ 25.68 | \$ 23.55 | \$ 25.68 | \$ 23.55 |
| 9 | 8/5/2019 | \$ 16.81 | \$ 15.72 | \$ 14.79 | \$ 14.36 | \$ 14.64 | \$ 15.77 | \$ 17.12 | \$ 17.98 | \$ 20.40 | \$ 22.56 | \$ 28.91 | \$ 54.73 | \$ 56.61 | \$ 139.04 | \$ 693.59 | \$ 2,029.85 | \$ 1,985.38 | \$ 370.90 | \$ 56.80 | \$ 31.72 | \$ 27.04 | \$ 20.88 | \$ 18.97 | \$ 17.85 | \$ 17.85 |
| 10 | 6/7/2019 | \$ 17.72 | \$ 16.83 | \$ 16.83 | \$ 16.24 | \$ 16.36 | \$ 16.84 | \$ 17.46 | \$ 16.78 | \$ 17.71 | \$ 19.04 | \$ 20.52 | \$ 25.20 | \$ 27.81 | \$ 33.98 | \$ 37.27 | \$ 39.75 | \$ 38.81 | \$ 28.91 | \$ 23.44 | \$ 25.99 | \$ 25.13 | \$ 21.51 | \$ 22.31 | \$ 19.49 | \$ 19.49 |
| 11 | 6/7/2019 | \$ 17.69 | \$ 16.69 | \$ 16.06 | \$ 15.74 | \$ 15.72 | \$ 16.31 | \$ 16.92 | \$ 18.04 | \$ 18.84 | \$ 19.73 | \$ 22.44 | \$ 25.09 | \$ 27.51 | \$ 41.88 | \$ 203.28 | \$ 397.48 | \$ 313.69 | \$ 206.13 | \$ 48.46 | \$ 36.33 | \$ 34.55 | \$ 30.90 | \$ 21.45 | \$ 18.23 | \$ 18.23 |
| 12 | 6/8/2019 | \$ 16.55 | \$ 14.77 | \$ 13.95 | \$ 13.57 | \$ 14.30 | \$ 14.45 | \$ 14.31 | \$ 15.22 | \$ 16.26 | \$ 17.28 | \$ 19.35 | \$ 21.62 | \$ 25.05 | \$ 27.25 | \$ 35.11 | \$ 38.93 | \$ 42.89 | \$ 33.99 | \$ 29.72 | \$ 26.14 | \$ 26.53 | \$ 21.35 | \$ 19.77 | \$ 16.52 | \$ 16.52 |
| 13 | 6/9/2019 | \$ 16.12 | \$ 14.34 | \$ 13.55 | \$ 13.78 | \$ 14.76 | \$ 14.43 | \$ 12.48 | \$ 13.25 | \$ 15.18 | \$ 17.05 | \$ 19.39 | \$ 20.27 | \$ 19.92 | \$ 13.23 | \$ 13.75 | \$ 14.23 | \$ 12.88 | \$ 12.49 | \$ 13.26 | \$ 15.08 | \$ 13.15 | \$ 14.03 | \$ 12.56 | \$ 12.56 | \$ 12.56 |
| 14 | 6/10/2019 | \$ 13.80 | \$ 13.27 | \$ 13.82 | \$ 13.98 | \$ 14.29 | \$ 14.99 | \$ 15.31 | \$ 16.22 | \$ 16.32 | \$ 17.51 | \$ 17.86 | \$ 18.64 | \$ 19.58 | \$ 29.40 | \$ 24.01 | \$ 37.61 | \$ 28.03 | \$ 27.39 | \$ 26.92 | \$ 23.17 | \$ 23.34 | \$ 23.26 | \$ 25.24 | \$ 20.99 | \$ 20.99 |
| 15 | 6/11/2019 | \$ 21.10 | \$ 19.57 | \$ 18.17 | \$ 19.04 | \$ 18.88 | \$ 19.05 | \$ 19.27 | \$ 18.44 | \$ 18.83 | \$ 18.93 | \$ 19.47 | \$ 19.52 | \$ 19.66 | \$ 21.20 | \$ 22.12 | \$ 22.56 | \$ 22.03 | \$ 19.90 | \$ 19.59 | \$ 19.00 | \$ 19.50 | \$ 19.01 | \$ 16.27 | \$ 15.40 | \$ 15.40 |
| 16 | 6/12/2019 | \$ 13.00 | \$ 11.29 | \$ 10.16 | \$ 8.88 | \$ 11.14 | \$ 13.26 | \$ 15.77 | \$ 16.27 | \$ 16.37 | \$ 16.78 | \$ 18.10 | \$ 18.00 | \$ 18.29 | \$ 19.07 | \$ 20.98 | \$ 27.97 | \$ 32.37 | \$ 82.73 | \$ 29.78 | \$ 30.19 | \$ 27.96 | \$ 23.36 | \$ 20.62 | \$ 19.34 | \$ 19.34 |
| 17 | 6/13/2019 | \$ 17.81 | \$ 16.29 | \$ 15.93 | \$ 15.75 | \$ 15.75 | \$ 16.22 | \$ 16.87 | \$ 17.64 | \$ 18.80 | \$ 18.60 | \$ 19.20 | \$ 20.81 | \$ 34.40 | \$ 33.53 | \$ 28.24 | \$ 31.63 | \$ 34.92 | \$ 23.26 | \$ 19.17 | \$ 19.05 | \$ 19.42 | \$ 16.89 | \$ 17.20 | \$ 15.99 | \$ 15.99 |
| 18 | 6/14/2019 | \$ 17.49 | \$ 15.00 | \$ 13.41 | \$ 12.91 | \$ 14.06 | \$ 15.61 | \$ 16.45 | \$ 16.27 | \$ 15.58 | \$ 18.05 | \$ 15.24 | \$ 16.93 | \$ 18.67 | \$ 23.58 | \$ 21.24 | \$ 25.57 | \$ 28.23 | \$ 24.06 | \$ 18.73 | \$ 19.06 | \$ 17.92 | \$ 18.18 | \$ 17.46 | \$ 16.41 | \$ 16.41 |
| 19 | 6/15/2019 | \$ 15.03 | \$ 12.92 | \$ 11.07 | \$ 9.81 | \$ 8.10 | \$ 9.94 | \$ 11.72 | \$ 13.31 | \$ 14.40 | \$ 11.93 | \$ 14.57 | \$ 20.89 | \$ 32.89 | \$ 20.62 | \$ 22.07 | \$ 23.84 | \$ 24.26 | \$ 20.03 | \$ 18.72 | \$ 18.34 | \$ 18.67 | \$ 18.38 | \$ 20.73 | \$ 20.03 | \$ 20.03 |
| 20 | 6/16/2019 | \$ 21.73 | \$ 18.53 | \$ 18.22 | \$ 17.65 | \$ 17.69 | \$ 18.14 | \$ 18.95 | \$ 18.90 | \$ 18.70 | \$ 18.20 | \$ 18.85 | \$ 18.80 | \$ 19.44 | \$ 19.27 | \$ 19.80 | \$ 19.55 | \$ 19.22 | \$ 19.07 | \$ 18.74 | \$ 18.61 | \$ 18.92 | \$ 18.45 | \$ 18.52 | \$ 17.55 | \$ 17.55 |
| 21 | 6/17/2019 | \$ 16.30 | \$ 15.56 | \$ 15.59 | \$ 16.10 | \$ 16.42 | \$ 17.00 | \$ 17.65 | \$ 17.36 | \$ 17.29 | \$ 17.32 | \$ 17.75 | \$ 18.39 | \$ 19.99 | \$ 23.67 | \$ 27.65 | \$ 44.89 | \$ 29.05 | \$ 45.46 | \$ 29.94 | \$ 24.73 | \$ 23.14 | \$ 23.26 | \$ 21.35 | \$ 18.67 | \$ 18.67 |
| 22 | 6/18/2019 | \$ 16.89 | \$ 16.39 | \$ 16.00 | \$ 16.11 | \$ 14.71 | \$ 15.13 | \$ 15.78 | \$ 16.73 | \$ 18.38 | \$ 19.05 | \$ 19.81 | \$ 20.30 | \$ 20.52 | \$ 21.83 | \$ 28.79 | \$ 45.53 | \$ 48.47 | \$ 38.11 | \$ 32.87 | \$ 23.47 | \$ 24.70 | \$ 22.48 | \$ 19.90 | \$ 18.45 | \$ 18.45 |
| 23 | 6/19/2019 | \$ 17.33 | \$ 16.63 | \$ 17.74 | \$ 17.34 | \$ 16.70 | \$ 15.92 | \$ 17.58 | \$ 17.63 | \$ 18.68 | \$ 18.87 | \$ 20.85 | \$ 21.70 | \$ 32.75 | \$ 41.90 | \$ 38.67 | \$ 48.31 | \$ 70.80 | \$ 57.94 | \$ 36.96 | \$ 93.29 | \$ 33.17 | \$ 31.95 | \$ 22.26 | \$ 19.45 | \$ 19.45 |
| 24 | 6/20/2019 | \$ 18.01 | \$ 16.08 | \$ 13.83 | \$ 11.87 | \$ 11.90 | \$ 12.51 | \$ 14.28 | \$ 15.09 | \$ 16.79 | \$ 17.80 | \$ 18.87 | \$ 20.11 | \$ 25.31 | \$ 25.66 | \$ 26.43 | \$ 25.45 | \$ 26.04 | \$ 24.71 | \$ 24.21 | \$ 22.05 | \$ 21.12 | \$ 20.61 | \$ 20.62 | \$ 20.17 | \$ 20.17 |
| 25 | 6/21/2019 | \$ 18.21 | \$ 15.42 | \$ 14.70 | \$ 14.14 | \$ 14.00 | \$ 14.89 | \$ 15.88 | \$ 15.96 | \$ 17.11 | \$ 17.49 | \$ 19.00 | \$ 19.35 | \$ 22.31 | \$ 29.95 | \$ 23.33 | \$ 21.71 | \$ 21.44 | \$ 22.35 | \$ 21.33 | \$ 19.97 | \$ 19.42 | \$ 19.41 | \$ 20.57 | \$ 19.94 | \$ 19.94 |
| 26 | 6/22/2019 | \$ 18.65 | \$ 17.55 | \$ 17.46 | \$ 17.39 | \$ 16.68 | \$ 17.81 | \$ 17.45 | \$ 16.81 | \$ 16.88 | \$ 15.53 | \$ 17.28 | \$ 20.10 | \$ 28.68 | \$ 36.59 | \$ 20.57 | \$ 22.88 | \$ 20.03 | \$ 19.96 | \$ 18.74 | \$ 18.52 | \$ 19.26 | \$ 18.90 | \$ 17.19 | \$ 17.08 | \$ 17.08 |
| 27 | 6/23/2019 | \$ 15.08 | \$ 15.44 | \$ 15.44 | \$ 14.45 | \$ 14.45 | \$ 13.88 | \$ 13.81 | \$ 15.22 | \$ 17.42 | \$ 17.67 | \$ 17.86 | \$ 19.20 | \$ 20.74 | \$ 47.41 | \$ 50.70 | \$ 20.23 | \$ 19.61 | \$ 19.09 | \$ 18.59 | \$ 24.29 | \$ 26.53 | \$ 37.26 | \$ 21.00 | \$ 20.51 | \$ 19.98 |
| 28 | 6/24/2019 | \$ 18.38 | \$ 17.67 | \$ 17.50 | \$ 17.08 | \$ 16.86 | \$ 16.87 | \$ 16.45 | \$ 16.91 | \$ 16.79 | \$ 16.35 | \$ 17.12 | \$ 17.95 | \$ 18.77 | \$ 20.74 | \$ 20.23 | \$ 33.94 | \$ 27.28 | \$ 20.12 | \$ 18.64 | \$ 17.30 | \$ 16.89 | \$ 15.66 | \$ 11.93 | \$ 11.86 | \$ 11.86 |
| 29 | 6/25/2019 | \$ 9.59 | \$ 0.50 | \$ (0.75) | \$ 6.08 | \$ 11.42 | \$ 14.28 | \$ 14.98 | \$ 16.21 | \$ 17.70 | \$ 18.07 | \$ 22.73 | \$ 28.76 | \$ 36.42 | \$ 26.53 | \$ 25.72 | \$ 25.72 | \$ 23.27 | \$ 21.78 | \$ 20.72 | \$ 20.31 | \$ 21.78 | \$ 19.50 | \$ 17.98 | \$ 16.83 | \$ 16.83 |
| 30 | 6/26/2019 | \$ 15.08 | \$ 14.54 | \$ 11.38 | \$ 8.82 | \$ 11.38 | \$ 13.04 | \$ 16.46 | \$ 17.25 | \$ 18.33 | \$ 17.88 | \$ 18.77 | \$ 21.11 | \$ 20.89 | \$ 21.92 | \$ 21.05 | \$ 21.54 | \$ 25.09 | \$ 21.78 | \$ 19.85 | \$ 19.08 | \$ 19.59 | \$ 18.91 | \$ 18.07 | \$ 16.86 | \$ 16.86 |
| 31 | 6/27/2019 | \$ 15.89 | \$ 14.24 | \$ 13.85 | \$ 14.61 | \$ 15.57 | \$ 16.58 | \$ 16.61 | \$ 16.87 | \$ 16.95 | \$ 14.29 | \$ 16.61 | \$ 24.71 | \$ 21.82 | \$ 20.05 | \$ 21.47 | \$ 21.54 | \$ 25.09 | \$ 21.78 | \$ 19.85 | \$ 19.08 | \$ 19.59 | \$ 18.91 | \$ 18.07 | \$ 16.86 | \$ 16.86 |
| 32 | 6/28/2019 | \$ 15.88 | \$ 14.49 | \$ 13.13 | \$ 11.76 | \$ 13.09 | \$ 15.00 | \$ 15.80 | \$ 15.18 | \$ 14.38 | \$ 16.47 | \$ 20.00 | \$ 24.13 | \$ 25.34 | \$ 26.80 | \$ 27.50 | \$ 25.52 | \$ 23.85 | \$ 22.44 | \$ 20.95 | \$ 20.57 | \$ 21.34 | \$ 19.51 | \$ 17.52 | \$ 16.96 | \$ 16.96 |
| 33 | 6/29/2019 | \$ 16.07 | \$ 15.25 | \$ 14.56 | \$ 13.82 | \$ 13.56 | \$ 14.16 | \$ 14.38 | \$ 15.29 | \$ 17.76 | \$ 14.32 | \$ 21.94 | \$ 33.49 | \$ 59.89 | \$ 28.80 | \$ 25.32 | \$ 25.45 | \$ 25.36 | \$ 25.31 | \$ 23.66 | \$ 22.57 | \$ 21.34 | \$ 19.54 | \$ 17.17 | \$ 15.62 | \$ 15.62 |
| 34 | 6/30/2019 | \$ 14.97 | \$ 12.98 | \$ 11.07 | \$ 9.66 | \$ 10.41 | \$ 12.09 | \$ 13.41 | \$ 13.99 | \$ 15.81 | \$ 16.85 | \$ 17.47 | \$ 18.64 | \$ 19.96 | \$ 22.05 | \$ 23.15 | \$ 24.68 | \$ 24.53 | \$ 24.40 | \$ 24.69 | \$ 20.67 | \$ 19.66 | \$ 18.52 | \$ 17.54 | \$ 16.01 | \$ 16.01 |
| 35 | 7/1/2019 | \$ 15.42 | \$ 14.45 | \$ 13.84 | \$ 12.97 | \$ 13.40 | \$ 14.47 | \$ 15.21 | \$ 16.25 | \$ 18.12 | \$ 18.42 | \$ 21.01 | \$ 27.88 | \$ 38.02 | \$ 25.58 | \$ 34.59 | \$ 51.33 | \$ 42.93 | \$ 26.20 | \$ 20.62 | \$ 20.15 | \$ 19.42 | \$ 18.77 | \$ 16.88 | \$ 16.76 | \$ 16.76 |
| 36 | 7/2/2019 | \$ 16.23 | \$ 15.99 | \$ 15.79 | \$ 16.19 | \$ 16.52 | \$ 16.84 | \$ 17.12 | \$ 18.51 | \$ 18.09 | \$ 17.34 | \$ 25.20 | \$ 33.29 | \$ 173.62 | \$ 39.48 | \$ 55.64 | \$ 62.68 | \$ 34.70 | \$ 24.97 | \$ 22.71 | \$ 21.71 | \$ 21.88 | \$ 19.91 | \$ 18.05 | \$ 16.71 | \$ 16.71 |
| 37 | 7/3/2019 | \$ 15.51 | \$ 13.22 | \$ 12.86 | \$ 10.59 | \$ 12.03 | \$ 14.12 | \$ 13.87 | \$ 15.61 | \$ 16.12 | \$ 16.38 | \$ 17.94 | \$ 18.76 | \$ 19.35 | \$ 20.07 | \$ 20.42 | \$ 22.41 | \$ 21.81 | \$ 20.65 | \$ 19.25 | \$ 17.95 | \$ 17.39 | \$ 16.68 | \$ 17.54 | \$ 16.03 | \$ 16.03 |
| 38 | 7/4/2019 | \$ 14.45 | \$ 12.96 | \$ 12.49 | \$ 11.75 | \$ 11.56 | \$ 13.12 | \$ 13.41 | \$ 15.10 | \$ 16.32 | \$ 16.49 | \$ 17.14 | \$ 18.80 | \$ 20.23 | \$ 21.26 | \$ 21.50 | \$ 22.45 | \$ 21.42 | \$ 20.42 | \$ 19.32 | \$ 18.23 | \$ 17.42 | \$ 16.68 | \$ 16.77 | \$ 15.51 | \$ 15.51 |
| 39 | 7/5/2019 | \$ 14.74 | \$ 14.67 | \$ 14.24 | \$ 13.60 | \$ 13.86 | \$ 14.19 | \$ 12.93 | \$ 13.80 | \$ 14.00 | \$ 13.80 | \$ 16.98 | \$ 19.92 | \$ 25.07 | \$ 26.33 | \$ 25.54 | \$ 30.31 | \$ 31.01 | \$ 26.78 | \$ 24.74 | \$ 22.60 | \$ 23.22 | \$ 20.24 | \$ 18.33 | \$ 16.86 | \$ 16.86 |
| 40 | 7/6/2019 | \$ 16.97 | \$ 15.09 | \$ 14.75 | \$ 14.08 | \$ 13.49 | \$ 13.30 | \$ 13.55 | \$ 14.77 | \$ 17.01 | \$ 18.90 | \$ 23.25 | \$ 25.34 | \$ 29.81 | \$ 29.21 | \$ 32.03 | \$ 141.11 | \$ 64.64 | \$ 30.62 | \$ 23.82 | \$ 22.08 | \$ 23.38 | \$ 23.21 | \$ 20.21 | \$ 19.12 | \$ 19.12 |
| 41 | 7/7/2019 | \$ 19.63 | \$ 18.47 | \$ 17.25 | \$ 16.25 | \$ 15.74 | \$ 15.26 | \$ 15.38 | \$ 16.11 | \$ 17.88 | \$ 19.53 | \$ 23.57 | \$ 29.58 | \$ 104.94 | \$ 37.63 | \$ 50.32 | \$ 47.12 | \$ 25.82 | \$ 25.73 | \$ 24.97 | \$ 25.19 | \$ 33.98 | \$ 27.24 | \$ 23.98 | \$ 23.29 | \$ 23.29 |
| 42 | 7/8/2019 | \$ 20.92 | \$ 18.54 | \$ 17.04 | \$ 15.91 | \$ 15.87 | \$ 16.00 | \$ 16.70 | \$ 18.28 | \$ 19.05 | \$ 20.58 | \$ 24.60 | \$ 26.63 | \$ 36.37 | \$ 27.78 | \$ 30.25 | \$ 27.12 | \$ 24.05 | \$ 22.31 | \$ 19.80 | \$ 20.34 | \$ 19.97 | \$ 18.21 | \$ 15.48 | \$ 12.84 | \$ 12.84 |
| 43 | 7/9/2019 | \$ 12.03 | \$ 8.37 | \$ 2.49 | \$ 2.49 | \$ 3.23 | \$ 9.89 | \$ 11.71 | \$ 13.97 | \$ 15.38 | \$ 16.87 | \$ 19.68 | \$ 23.88 | \$ 27.99 | \$ 36.91 | \$ 87.84 | \$ | | | | | | | | | |

[illegible]

[illegible]

From: Michael McNamara <michael.mcnamara@lancium.com>

To: Eric Kutscha <eric.kutscha@lancium.com>, Jon Cohen <jon.cohen@lancium.com>, Raymond Cline <recline@lancium.com>

Subject: Fwd: BearBox 20' product details and supporting documentation

Date: Thu, 09 May 2019 11:35:32 -0500

Importance: Normal

Attachments: BearBox_Product_Details_Summary_v1.pdf; Permatron_Spec_Sheet.pdf; CamFil_Spec_Sheet.pdf; JandD_Spec_Sheet.pdf; exelon4_modeling_05092019.xlsx

We met this guy at the fidelity conference. He seemed very competent. His box seems very expensive though.

----- Forwarded message -----

From: **Austin Storms** <austin@bearbox.io>

Date: Thu, May 9, 2019 at 9:32 AM

Subject: BearBox 20' product details and supporting documentation

To: <michael.mcnamara@lancium.com>

Hey Michael,

See attached for the 20' BearBox product details and some supporting docs. I've also attached some recent modeling data from one of the Exelon wind sites (based on publicly available marketplace data) - I can model for any pricing node you guys might be interested in reviewing.

Let me know if you have any questions!

Talk soon,

A

Austin M. Storms
BearBox, LLC
[611 O' Keefe Avenue](https://www.bearbox.io)
[New Orleans, LA 70113](https://www.bearbox.io)
austin@bearbox.io

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(917) 833-2720

| |
|--|
| Bearbox v Lancium Trial Exhibit TX770 |
|--|

BOX 'D1' CAPITAL SPEND

Status of Demo Box 1 spending plan

- Box 1 capex to date is below our forecast, however the design spec did not include fire suppression and evaporative cooling
- Field deployment will also require spending on electrical equipment (transformer, switchgear) which is not reflected in the cost to date
- On an “apples to apples” basis, Box 1 would likely come in at around \$230k, within 10-15% of our forecast
- We expect the next generation design to come in at xx – xxx / box

| Box 1 Capex (In thousands) | 9/30/18 Actual | Forecast |
|---------------------------------------|-------------------|--------------|
| JV Driver | 87.7 | |
| Ready Engineering (Electrical design) | 73.7 | |
| Shipping | 5.1 | |
| Total Box 1 Capex to Date | 166.5 | |
| JV Driver final invoice | 15.0 | |
| Fire Suppression | 25.0 | |
| Transformers / Switchgear | 20.0 | |
| Estimated Remaining Spend | 60.0 | |
| Box 1 Total Capex (Estimated) | 226.5 | 200.0 |

BearBox 20' product details and supporting documentation

From: Austin Storms <austin@bearbox.io>
To: michael.mcnamara@lancium.com
Date: Thu, 09 May 2019 11:32:01 -0500
Attachments: BearBox Product Details Summary v1.pdf (708.12 kB); Permatron_Spec_Sheet.pdf (1.23 MB); CamFil_Spec_Sheet.pdf (379.28 kB); JandD_Spec_Sheet.pdf (2.11 MB); exelon4_modeling_05092019.xlsx (92.14 kB)

Hey Michael,

See attached for the 20' BearBox product details and some supporting docs. I've also attached some recent modeling data from one of the Exelon wind sites (based on publicly available marketplace data) - I can model for any pricing node you guys might be interested in reviewing.

Let me know if you have any questions!

Talk soon,

A

Austin M. Storms
BearBox, LLC
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austin@bearbox.io

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| |
|---|
| Bearbox v Lancium Trial Exhibit TX887 |
|---|

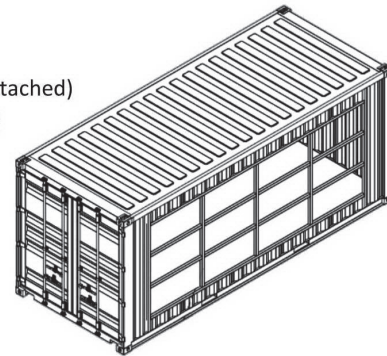
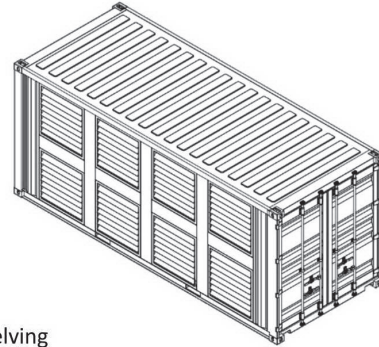
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BearBox

Product details - BearBox V20S (Bitmain S9j, Dragonmint T1, or similar)

- **Physical Dimensions**
 - Exterior: 20'L x 8' W x 8'6"H
 - Interior: 19'4"L x 7'8"W x 7'9"H
 - Door Opening: 7'8"W x 7'5"H
 - Weight: 4,900 lbs. + installed equipment
- **Electrical System**
 - 3-Phase, 4-Wire 415Y/240v
 - Remote dual-outlet control PDUs (64.8kW total)
 - All network infrastructure on UPS/battery backup
 - ~373kW max load
- **Physical Rack System**
 - Custom laser cut aluminum frame with stainless wire deck shelving
 - Adjustable in 1" increments
- **Cooling System**
 - Convection air cooled
 - (8) 10,100 CFM direct-drive, single-phase exhaust fans (see attached)
 - Temperature controlled/software automation, remote on/off
- **Air Filtration System**
 - Option 1: Permatron Model U2 (see attached)
 - Option 2: Camfil V-Bank Glide/Pack (see attached)
 - Intake-side adjustable pitch weather shield
- **Total Designed Hashrate**
 - 272 miners @ 14.5 TH/s each
 - 3.9 PH/s total
- **Network**
 - Cat5e ethernet
 - 48-port unmanaged switches (CISCO, TP-Link, or other)
 - On-site WAN or satellite (varies by location)
- **Software Management**
 - Local cgminer watchdog
 - PostgreSQL database miner logging
 - PDU/relay mapping (full automation)
 - Optional real-time breakeven monitoring (renewable marketplace data)
 - SMTP email alerts (restart, reboot, and maintenance required)
- **Summary**
 - BearBox V20S (3.9 PH/s @ ~373kW max load)
 - Does **NOT** include miners or exterior electrical infrastructure (transformer)
 - Price - \$86,791.51 (\$94,766.33 after 9.2% sales tax)

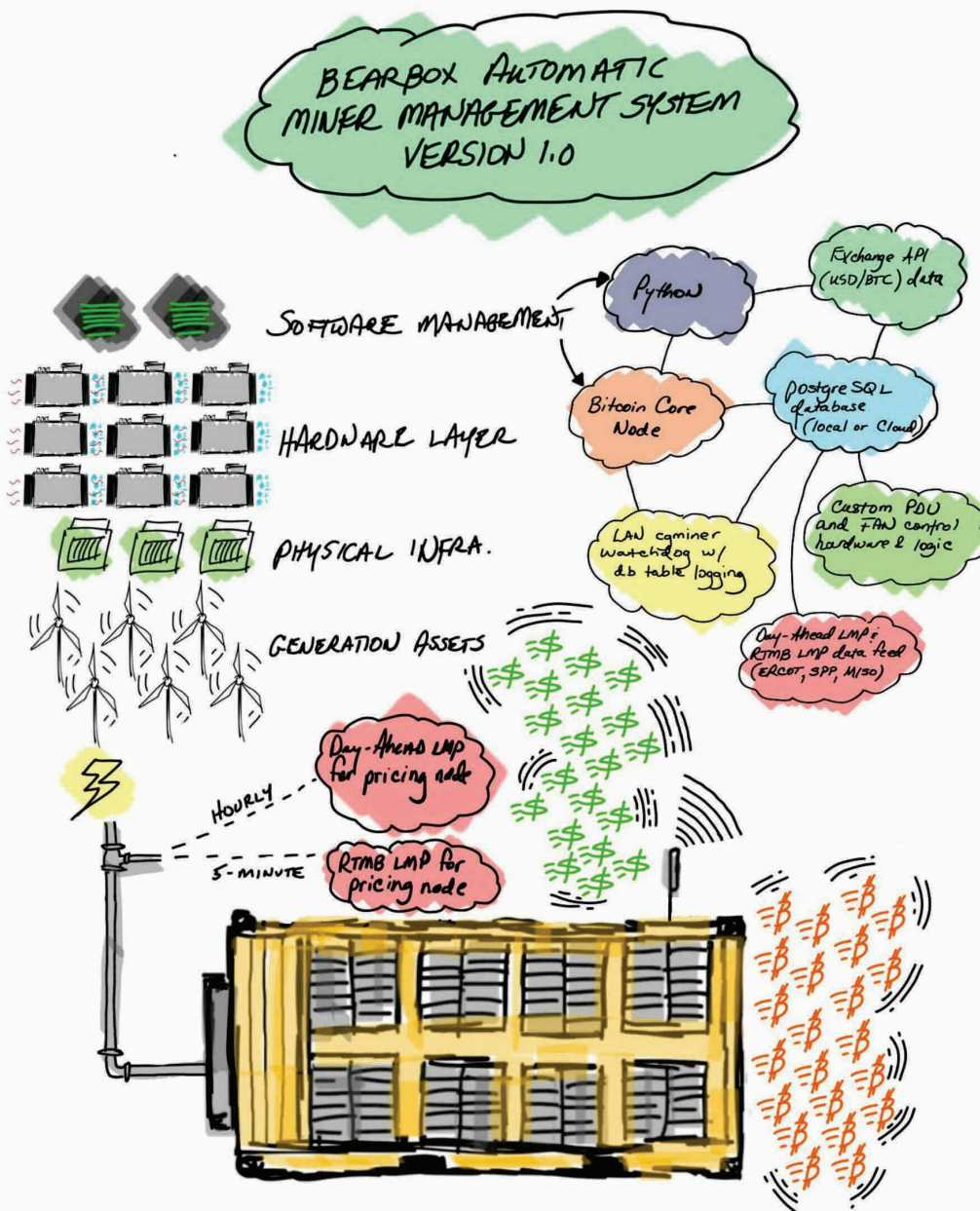


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BearBox

Product details - BearBox V20S (Bitmain S9j, Dragonmint T1, or similar) – cont.



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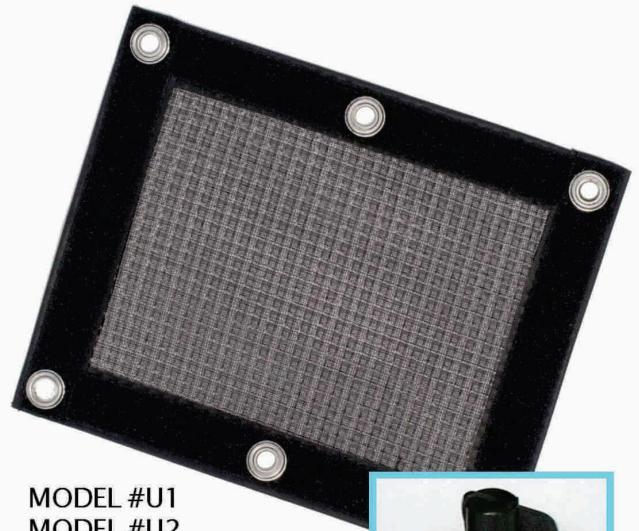
PreVent® Model U/BHA Flexible Frame Air Intake Filter

Acts as a primary pre-filtration defense to help prevent the damage and extensive maintenance that large volumes of dirt and debris can cause. Model U and BHA are custom designed and manufactured to fit any sized air intake.

Model U filter is constructed of washable three-dimensional electrostatic polypropylene media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model U1 contains one layer of media or Model U2 contains two layers of media depending on the application's environmental particle size.

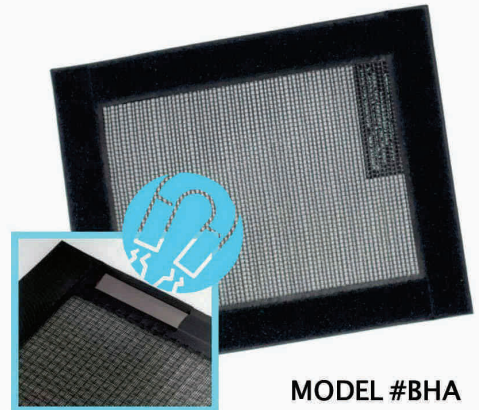
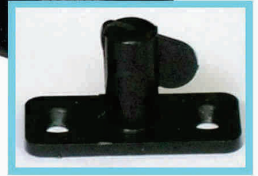
Model BHA filter is constructed of black PVC coated polyester high abrasion media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model BHA contains one layer of media.

- Can be affixed to unit with hook/loop stripping, grommets with mount clips, elastic bungee hooks or magnetic stripping
- Fits any equipment, specify size
- Sewn 2.5" vinyl edge (folded to 1-1/4") is standard for flexible filters 0-2000 square inches
- Sonic welded edges also available as frame option
- UV protected black media
- U/L Classified as to Flammability Only
- 5 Year Warranty



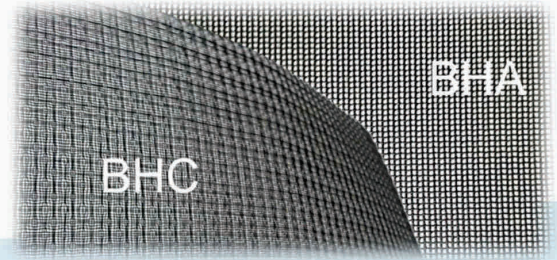
MODEL #U1
MODEL #U2

Plastic mount clips available for easy installation.



MODEL #BHA

Magnetic stripping inside vinyl edge available for easy installation.



| | U1 | U2 | BHA |
|-----------------------------|------------|------------|------------|
| Avg. Arrestance Efficiency | 42% | 72% | N/A |
| Dust Holding Capacity | 67 gm. | 100 gm | N/A |
| Initial Air Flow Resistance | 0.02" w.g. | 0.05" w.g. | 0.02" w.g. |

www.permatron.com
1-800-882-8012

LIT-PREVENTMODELU/BHA

©2015 Permatron Corporation

BB00000093

Filter Frames & Housings

Housings (ASHRAE)

V-Bank Glide/Pack®



Advantages

- V-bank design reduces filter velocity and filter pressure drop by up to 60%, saving energy
- Increases life of filters up to four times

Typical applications: Single-stage V-bank filter housing for commercial, industrial, manufacturing or medical facilities.

Construction: 16-gauge galvanized steel with pre-drilled standing flanges, dual access doors, UV-resistant door knobs, door and filter sealing gasketing.

Filters: Any 2" deep filter.

Performance: Less than 1/2 of 1% leakage guaranteed. Rated airflow 500 fpm, may be operated to 625 fpm. Standard model operational to $\pm 6.0^\circ$ w.g.

Additional data: Sizes available from 4 filters high to 6 filters wide. Housing is weatherproof for outside installation without modification. Includes pneumatic fitting for static pressure gauge.

See Literature 2421 for more details.

Dimensions and Airflow Capacity (cfm)

| Number of filters wide | Height (inches) | 1/2 Filter wide | 1 Filter wide | 1-1/2 Filters wide | 2 Filters wide | 2-1/2 Filters wide | 3 Filters wide | 3-1/2 Filters wide | 4 Filters wide | 4-1/2 Filters wide | 5 Filters wide | 5-1/2 Filters wide | 6 Filters wide | Housing depth (inches) |
|------------------------|-----------------|-----------------|---------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|------------------------|
| 1/2 | 15.25 | - | 2,000 | - | 4,000 | - | 6,000 | - | 8,000 | - | 10,000 | - | 12,000 | 28.00 |
| 1 | 27.25 | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 | 14,000 | 16,000 | 18,000 | 20,000 | 22,000 | 24,000 | |
| 1-1/2 | 39.50 | - | 6,000 | - | 12,000 | - | 18,000 | - | 24,000 | - | 30,000 | - | 36,000 | |
| 2 | 51.50 | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 28,000 | 32,000 | 36,000 | 40,000 | 44,000 | 48,000 | |
| 2-1/2 | 63.75 | - | 10,000 | - | 20,000 | - | 30,000 | - | 40,000 | - | 50,000 | - | 60,000 | |
| 3 | 75.75 | 6,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 | 42,000 | 48,000 | 54,000 | 60,000 | 66,000 | 72,000 | |
| 3-1/2 | 88.00 | - | 14,000 | - | 28,000 | - | 42,000 | - | 54,000 | - | 70,000 | - | 84,000 | |
| 4 | 100.00 | 8,000 | 16,000 | 24,000 | 32,000 | 40,000 | 48,000 | 56,000 | 60,000 | 72,000 | 80,000 | 88,000 | 96,000 | |
| Width (inches) | | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | |

As part of our program for continuous improvement, Camfil reserves the right to change specifications without notice. 2018-12-07

Conover NC, Corcoran CA, Crystal Lake IL, Riverdale NJ,
Washington NC, Concord Ontario
United States Tel: (866) 422-6345, Canada Tel: (800) 976-9382
www.camfil.com



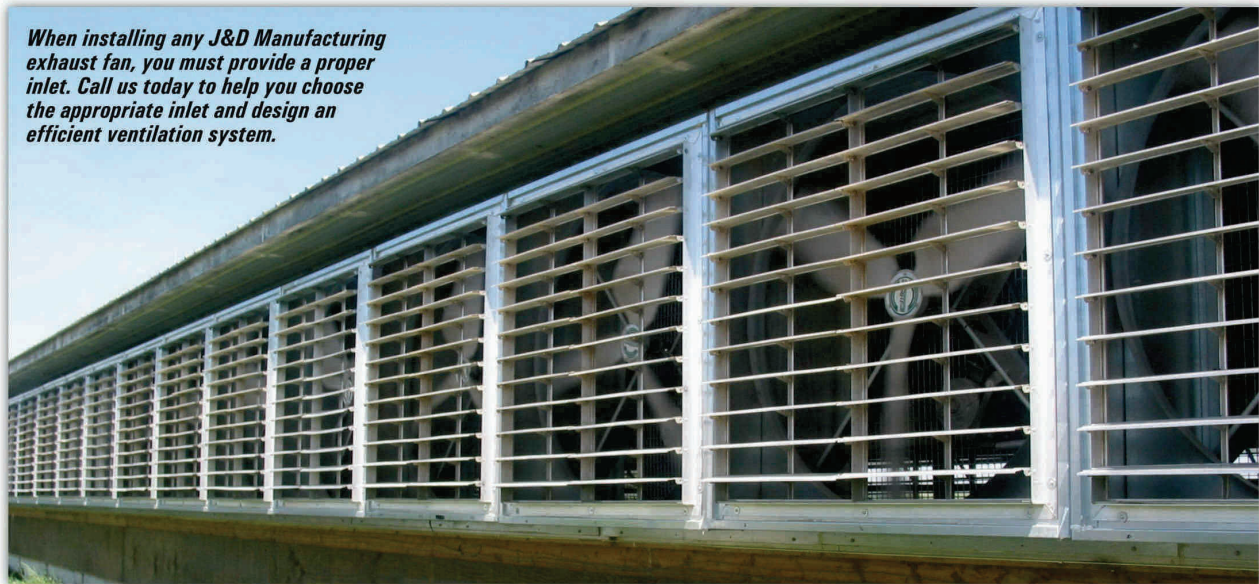
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Total System Solutions

Wall Master Exhaust Fan

J&D Manufacturing's Wall Master exhaust fan offers high volume output and smooth, efficient operation. The heavy duty 18 gauge galvanized housing is strong, compact, and easy to install. J&D's Wall Master is a dependable fan suited for nearly any application including agricultural buildings, greenhouses, and warehouses.

When installing any J&D Manufacturing exhaust fan, you must provide a proper inlet. Call us today to help you choose the appropriate inlet and design an efficient ventilation system.



Features

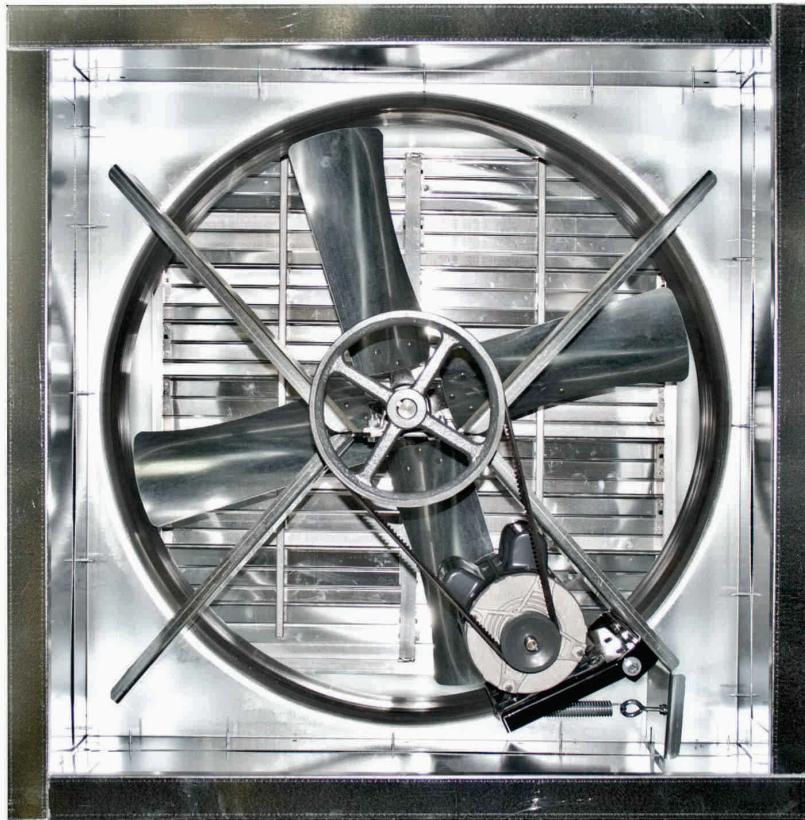
- Available in 36" and 50" models
- Heavy duty 18 gauge galvanized housing
- Rugged X-frame for added stability on belt drive models
- Aluminum shutters with tie bar to prevent flapping and locking open
- 1" x 2" removable wire mesh guards are hot dip galvanized after welding
- Poly guard clips to reduce vibration for quiet performance
- 3, 4 or 6 blade galvanized propeller is balanced for smooth operation
- **Lifetime Warranty** on 3 blade cast aluminum props, available on select 50" models
- Bearings are eccentric locking, pre-lubricated, permanently sealed and rubber mounted for smooth operation and reduced blade fatigue, and are covered by a **Three Year Warranty**
- Spring belt tensioning system reduces bounce at startup on all belt driven models
- Optional weather hood available for protection from severe wind and weather
- Totally enclosed, maintenance-free, high-efficiency motors have completely sealed ball bearings, and are covered by a **Two Year Warranty**



⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.

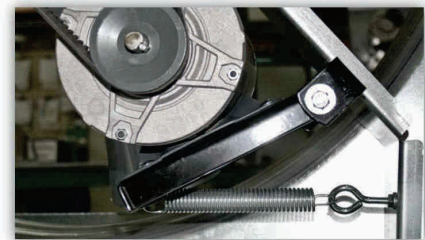
Wall Master Exhaust Fan



Heavy-duty X-frame - (Shown without rear guard for illustration purposes only)



Removable 12 Gauge 1" x 2" wire mesh guards are hot dip galvanized after welding. The guard is attached to the housing with poly guard clips to reduce noise and vibration.



Belt drive models include a heavy duty spring belt tensioner to reduce bounce at startup and provide uniform loading to increase the life of the belt and maintain high efficiency.

| Part# | Size | Phs | Spd | @0.05" SP | | Drive | Prop |
|---|------|-----|-----|-----------|------|--------|-------|
| | | | | CFM | Watt | | |
| Single Phase | | | | | | | |
| VF36DM | 36" | 1 | 1 | 10,100 | 19.5 | Direct | 3-Glv |
| VF36GG | 36" | 1 | 1 | 9,000 | 18.1 | Belt | 4-Glv |
| VF36GG1 | 36" | 1 | 1 | 11,500 | 15.2 | Belt | 4-Glv |
| VF36GG2 | 36" | 1 | 2 | 11,400 | 15.3 | Belt | 4-Glv |
| VF50GG | 50" | 1 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF50GG6 | 50" | 1 | 1 | 21,300 | 20.0 | Belt | 6-Glv |
| VF50GGCA | 50" | 1 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| Three Phase | | | | | | | |
| VF36DM3CF | 36" | 3 | 1 | 10,000 | 19.6 | Direct | 3-Glv |
| VF36GG3 | 36" | 3 | 1 | 11,400 | 15.1 | Belt | 4-Glv |
| VF503GG | 50" | 3 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF503GG6 | 50" | 3 | 1 | 21,200 | 20.2 | Belt | 6-Glv |
| VF503GGCA | 50" | 3 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| OSHA requires these fans to be mounted 7' above the floor | | | | | | | |

OSHA requires these fans to be mounted 7' above the floor

| Fan Size | Rough Opening |
|----------|---------------|
| 36" | 41"W x 41"H |
| 50" | 54¾"W x 54¾"H |

Optional Weather Hood

If Wall Master is mounted with the shutter side of the fan flush to an exterior wall a weather hood may be used on the exterior shutter side of the Wall Master to further protect the fan and shutter from severe winds and harsh weather.



| Wall Master Fan Size | Weather Hood Part# |
|----------------------|--------------------|
| 36" | VFT140860 |
| 50" | VFT140861 |

⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.

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Appx13330

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 2 | 5698.24 | 574867 | 0.0883609 | 5/6/19 11:37 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6928794 | 6.70217E+12 | 0.0283682 | 0.8777121 | 2.6928794 |
| 3 | 5704.01 | 574867 | 0.0884504 | 5/6/19 11:42 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6956062 | 6.70217E+12 | 0.0256247 | 0.7928282 | 2.6956062 |
| 4 | 5721.16 | 574868 | 0.0878003 | 5/6/19 11:47 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6757929 | 6.70217E+12 | 0.0266466 | 0.8244458 | 2.6757929 |
| 5 | 5712.77 | 574868 | 0.0876715 | 5/6/19 11:52 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6718689 | 6.70217E+12 | 0.0294184 | 0.9102053 | 2.6718689 |
| 6 | 5702.98 | 574868 | 0.0875213 | 5/6/19 11:57 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6672901 | 6.70217E+12 | 0.2156316 | 6.6716417 | 6.6716417 |
| 7 | 5711.53 | 574868 | 0.0876525 | 5/6/19 12:02 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.671289 | 6.70217E+12 | 0.4257598 | 13.1730082 | 13.1730082 |
| 8 | 5719.99 | 574868 | 0.0877823 | 5/6/19 12:08 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.6752457 | 6.70217E+12 | 0.2947237 | 9.1187513 | 9.1187513 |
| 9 | 5711.93 | 574869 | 0.0870193 | 5/6/19 12:13 | 0.0319112 | 0.9873325 | 4.89954E+13 | 2.6519913 | 6.70217E+12 | 0.1560219 | 4.8273176 | 4.8273176 |
| 10 | 5708.01 | 574871 | 0.0868646 | 5/6/19 12:18 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6472769 | 6.70217E+12 | 0.0253548 | 0.7844775 | 2.6472769 |
| 11 | 5701.9 | 574871 | 0.0867716 | 5/6/19 12:23 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6444432 | 6.70217E+12 | 0.027036 | 0.8364958 | 2.6444432 |
| 12 | 5698.51 | 574871 | 0.08672 | 5/6/19 12:28 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.642871 | 6.70217E+12 | 0.026636 | 0.8241178 | 2.642871 |
| 13 | 5705.99 | 574875 | 0.0875317 | 5/6/19 13:07 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6676082 | 6.70217E+12 | 0.0297482 | 0.9204093 | 2.6676082 |
| 14 | 5706.72 | 574875 | 0.0875429 | 5/6/19 13:11 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6679495 | 6.70217E+12 | 0.0283545 | 0.8772882 | 2.6679495 |
| 15 | 5702.01 | 574875 | 0.0874707 | 5/6/19 13:16 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6657475 | 6.70217E+12 | 0.0263671 | 0.8157981 | 2.6657475 |
| 16 | 5703.44 | 574876 | 0.0881359 | 5/6/19 13:21 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6860221 | 6.70217E+12 | 0.027458 | 0.8495505 | 2.6860221 |
| 17 | 5705.99 | 574876 | 0.0881753 | 5/6/19 13:26 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687223 | 6.70217E+12 | 0.0295297 | 0.9136489 | 2.687223 |
| 18 | 5706.85 | 574876 | 0.0881886 | 5/6/19 13:31 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687628 | 6.70217E+12 | 0.029437 | 0.9107808 | 2.687628 |
| 19 | 5726.52 | 574876 | 0.0884926 | 5/6/19 13:36 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6968915 | 6.70217E+12 | 0.0294468 | 0.911084 | 2.6968915 |
| 20 | 5727.41 | 574876 | 0.0885064 | 5/6/19 13:41 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6973107 | 6.70217E+12 | 0.0291977 | 0.9033768 | 2.6973107 |
| 21 | 5742.95 | 574876 | 0.0887465 | 5/6/19 13:46 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7046292 | 6.70217E+12 | 0.0461903 | 1.4291279 | 2.7046292 |
| 22 | 5734.03 | 574876 | 0.0886086 | 5/6/19 13:51 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7004284 | 6.70217E+12 | 0.0300478 | 0.9296789 | 2.7004284 |
| 23 | 5731.45 | 574876 | 0.0885688 | 5/6/19 13:56 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6992133 | 6.70217E+12 | 0.023358 | 0.7226965 | 2.6992133 |
| 24 | 5739.99 | 574877 | 0.0901743 | 5/6/19 14:01 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7481417 | 6.70217E+12 | 0.0252541 | 0.7813619 | 2.7481417 |
| 25 | 5749.1 | 574877 | 0.0903174 | 5/6/19 14:06 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7525033 | 6.70217E+12 | 0.022385 | 0.6925919 | 2.7525033 |
| 26 | 5732.99 | 574877 | 0.0900643 | 5/6/19 14:11 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7447903 | 6.70217E+12 | 0.0278815 | 0.8626536 | 2.7447903 |
| 27 | 5722.65 | 574878 | 0.0904991 | 5/6/19 14:16 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7580421 | 6.70217E+12 | 0.0276273 | 0.8547887 | 2.7580421 |
| 28 | 5719.43 | 574878 | 0.0904482 | 5/6/19 14:21 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7564902 | 6.70217E+12 | 0.0401146 | 1.2411457 | 2.7564902 |
| 29 | 5727.52 | 574878 | 0.0905761 | 5/6/19 14:26 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7603892 | 6.70217E+12 | 0.0357633 | 1.1065165 | 2.7603892 |
| 30 | 5719.12 | 574878 | 0.0904433 | 5/6/19 14:31 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7563408 | 6.70217E+12 | 0.0216376 | 0.6694673 | 2.7563408 |
| 31 | 5720.06 | 574880 | 0.0904384 | 5/6/19 14:37 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7561911 | 6.70217E+12 | 0.0206897 | 0.6401393 | 2.7561911 |
| 32 | 5730.64 | 574880 | 0.0906057 | 5/6/19 14:42 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7612891 | 6.70217E+12 | 0.0212322 | 0.6569243 | 2.7612891 |
| 33 | 5734.69 | 574880 | 0.0906697 | 5/6/19 14:47 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7632406 | 6.70217E+12 | 0.0214839 | 0.6647119 | 2.7632406 |
| 34 | 5739.31 | 574881 | 0.090775 | 5/6/19 14:52 | 0.0292446 | 0.9048279 | 4.71935E+13 | 2.7664494 | 6.70217E+12 | 0.0212921 | 0.6584776 | 2.7664494 |
| 35 | 5736.72 | 574882 | 0.0910352 | 5/6/19 14:57 | 0.0292446 | 0.9048279 | 4.70373E+13 | 2.7743811 | 6.70217E+12 | 0.020696 | 0.6403342 | 2.7743811 |
| 36 | 5741.99 | 574883 | 0.0905084 | 5/6/19 15:02 | 0.0212846 | 0.6585455 | 4.73545E+13 | 2.7583257 | 6.70217E+12 | 0.0203623 | 0.6300096 | 2.7583257 |
| 37 | 5733.24 | 574885 | 0.0890821 | 5/6/19 15:07 | 0.0212846 | 0.6585455 | 4.80495E+13 | 2.7148565 | 6.70217E+12 | 0.0198016 | 0.6126615 | 2.7148565 |
| 38 | 5724.73 | 574886 | 0.0885552 | 5/6/19 15:12 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6988006 | 6.70217E+12 | 0.0190006 | 0.5878786 | 2.6988006 |
| 39 | 5709.73 | 574886 | 0.0883232 | 5/6/19 15:17 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6917292 | 6.70217E+12 | 0.0184907 | 0.5721023 | 2.6917292 |
| 40 | 5678.11 | 574887 | 0.088385 | 5/6/19 15:22 | 0.0212846 | 0.6585455 | 4.79528E+13 | 2.6936119 | 6.70217E+12 | 0.023136 | 0.7158278 | 2.6936119 |
| 41 | 5683.73 | 574888 | 0.0873487 | 5/6/19 15:27 | 0.0212846 | 0.6585455 | 4.85697E+13 | 2.6620299 | 6.70217E+12 | 0.0165815 | 0.5130316 | 2.6620299 |
| 42 | 5681.84 | 574891 | 0.0832705 | 5/6/19 15:32 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.5377429 | 6.70217E+12 | 0.0157946 | 0.4886849 | 2.5377429 |
| 43 | 5697.16 | 574891 | 0.083495 | 5/6/19 15:37 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.5445855 | 6.70217E+12 | 0.0722406 | 2.2351242 | 2.5445855 |
| 44 | 5684.36 | 574892 | 0.0835678 | 5/6/19 15:42 | 0.0212846 | 0.6585455 | 5.07728E+13 | 2.5468044 | 6.70217E+12 | 0.025128 | 0.7774603 | 2.5468044 |
| 45 | 5683.95 | 574894 | 0.0819393 | 5/6/19 15:47 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.4971743 | 6.70217E+12 | 0.0141482 | 0.4377453 | 2.4971743 |
| 46 | 5700.28 | 574894 | 0.0821747 | 5/6/19 15:52 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.5043487 | 6.70217E+12 | 0.0158794 | 0.4913086 | 2.5043487 |
| 47 | 5700.01 | 574895 | 0.0825354 | 5/6/19 15:57 | 0.0212846 | 0.6585455 | 5.15494E+13 | 2.515341 | 6.70217E+12 | 0.0142467 | 0.4407929 | 2.515341 |
| 48 | 5696.94 | 574897 | 0.0824036 | 5/6/19 16:02 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5113225 | 6.70217E+12 | 0.0193804 | 0.5996296 | 2.5113225 |
| 49 | 5700.76 | 574897 | 0.0824588 | 5/6/19 16:07 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5130065 | 6.70217E+12 | 0.0145181 | 0.44919 | 2.5130065 |
| 50 | 5684.53 | 574897 | 0.0822241 | 5/6/19 16:12 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.505852 | 6.70217E+12 | 0.0157287 | 0.486646 | 2.505852 |
| 51 | 5689.74 | 574897 | 0.0822994 | 5/6/19 16:18 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5081486 | 6.70217E+12 | 0.0162324 | 0.5022305 | 2.5081486 |
| 52 | 5682.26 | 574897 | 0.0821912 | 5/6/19 16:23 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5048513 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 53 | 5686.59 | 574898 | 0.0828228 | 5/6/19 16:28 | 0.0282033 | 0.8726101 | 5.12496E+13 | 2.5240987 | 6.70217E+12 | 0.0148626 | 0.4598488 | 2.5240987 |
| 54 | 5681.45 | 574899 | 0.0812957 | 5/6/19 16:33 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5294123 | 6.70217E+12 | 0.0141661 | 0.4382991 | 2.5294123 |
| 55 | 5684.86 | 574899 | 0.0830469 | 5/6/19 16:38 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5309305 | 6.70217E+12 | 0.0039202 | 0.121291 | 2.5309305 |
| 56 | 5679.5 | 574899 | 0.0829686 | 5/6/19 16:43 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5285442 | 6.70217E+12 | 0.0059038 | 0.1826636 | 2.5285442 |
| 57 | 5681.53 | 574901 | 0.0836257 | 5/6/19 16:48 | 0.0282033 | 0.8726101 | 5.07124E+13 | 2.5485671 | 6.70217E+12 | 0.0056964 | 0.1762466 | 2.5485671 |
| 58 | 5689.99 | 574902 | 0.0837969 | 5/6/19 16:53 | 0.0282033 | 0.8726101 | 5.06841E+13 | 2.5537859 | 6.70217E+12 | 0.0098804 | 0.3056996 | 2.5537859 |
| 59 | 5691.01 | 574903 | 0.0831196 | 5/6/19 16:58 | 0.0282033 | 0.8726101 | 5.11063E+13 | 2.5331438 | 6.70217E+12 | 0.0072672 | 0.2248472 | 2.5331438 |
| 60 | 5699.02 | 574904 | 0.0827156 | 5/6/19 17:03 | 0.0245371 | 0.7591779 | 5.14281E+13 | 2.5208339 | 6.70217E+12 | 0.0100674 | 0.3114854 | 2.5208339 |
| 61 | 5700.57 | 574905 | 0.0827554 | 5/6/19 17:08 | 0.0245371 | 0.7591779 | 5.14174E+13 | 2.5220451 | 6.70217E+12 | 0.0086099 | 0.2663903 | 2.5220451 |
| 62 | 5695.51 | 574906 | 0.0812506 | 5/6/19 17:13 | 0.0245371 | 0.7591779 | 5.23232E+13 | 2.4761856 | 6.70217E+12 | 0.0053846 | 0.1665995 | 2.4761856 |
| 63 | 5694.8 | 574907 | 0.0809439 | 5/6/19 17:18 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4668388 | 6.70217E+12 | 0.0017196 | 0.0532044 | 2.4668388 |
| 64 | 5695.29 | 574907 | 0.0809509 | 5/6/19 17:23 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.467051 | 6.70217E+12 | 0.0048459 | 0.1499321 | 2.467051 |
| 65 | 5711.94 | 574907 | 0.0811875 | 5/6/19 17:28 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4742634 | 6.70217E+12 | 0.0072046 | 0.2229103 | 2.4742634 |
| 66 | 5717.52 | 574908 | 0.0815164 | 5/6/19 17:33 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4842862 | 6.70217E+12 | 0.0173188 | 0.5358437 | 2.4842862 |
| 67 | 5717.19 | 574908 | 0.0815117 | 5/6/19 17:38 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4841428 | 6.70217E+12 | 0.0107967 | 0.3340499 | 2.4841428 |
| 68 | 5709.94 | 574908 | 0.0814083 | 5/6/19 17:43 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4809927 | 6 | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|------------|------------|-----------|
| 96 | 5763.99 | 574916 | 0.0869032 | 5/6/19 20:05 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6484528 | 6.70217E+12 | -0.0003708 | -0.0114726 | 2.6484528 |
| 97 | 5769.68 | 574916 | 0.086989 | 5/6/19 20:10 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6510673 | 6.70217E+12 | 0.0062241 | 0.1925737 | 2.6510673 |
| 98 | 5769.14 | 574917 | 0.0882187 | 5/6/19 20:15 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6885453 | 6.70217E+12 | 0.0116013 | 0.3589442 | 2.6885453 |
| 99 | 5755.39 | 574917 | 0.0880085 | 5/6/19 20:20 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6821375 | 6.70217E+12 | 0.0009813 | 0.0303614 | 2.6821375 |
| 100 | 5754.1 | 574917 | 0.0879887 | 5/6/19 20:25 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6815363 | 6.70217E+12 | -0.0161407 | -0.4993933 | 2.6815363 |
| 101 | 5771.1 | 574917 | 0.0882487 | 5/6/19 20:30 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6894587 | 6.70217E+12 | -0.0174708 | -0.5405466 | 2.6894587 |
| 102 | 5764.05 | 574918 | 0.0890788 | 5/6/19 20:35 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.714756 | 6.70217E+12 | -0.0175085 | -0.541713 | 2.714756 |
| 103 | 5752.2 | 574918 | 0.0888956 | 5/6/19 20:40 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7091749 | 6.70217E+12 | -0.0038463 | -0.1190045 | 2.7091749 |
| 104 | 5755.49 | 574918 | 0.0889465 | 5/6/19 20:45 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7107244 | 6.70217E+12 | -0.0004318 | -0.0133599 | 2.7107244 |
| 105 | 5762.02 | 574919 | 0.0902091 | 5/6/19 20:50 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7492027 | 6.70217E+12 | 0.0004104 | 0.0126978 | 2.7492027 |
| 106 | 5760.7 | 574919 | 0.0901884 | 5/6/19 20:55 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7485729 | 6.70217E+12 | -0.0009508 | -0.0294178 | 2.7485729 |
| 107 | 5762.49 | | 0.0902164 | 5/6/19 21:02 | 0.0175071 | 0.5416697 | 4.76774E+13 | 2.749427 | | 0.0007073 | 0.0218839 | 2.749427 |
| 108 | 5774.99 | 574920 | 0.1001885 | 5/6/19 21:19 | 0.0175071 | 0.5242793 | 4.74463E+13 | 2.9553058 | 6.70217E+12 | -0.0013119 | -0.039287 | 2.9553058 |
| 109 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 110 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 111 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 112 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 113 | 5843.89 | 574923 | 0.1041911 | 5/6/19 21:52 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0733748 | 6.70217E+12 | 0.0001052 | 0.0031504 | 3.0733748 |
| 114 | 5889.14 | 574923 | 0.1049979 | 5/6/19 21:57 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0971724 | 6.70217E+12 | 0.0047856 | 0.1433128 | 3.0971724 |
| 115 | 5938.96 | 574925 | 0.1060149 | 5/6/19 22:02 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1271721 | 6.70217E+12 | 0.0012328 | 0.0369183 | 3.1271721 |
| 116 | 5924.06 | 574925 | 0.105749 | 5/6/19 22:07 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1193265 | 6.70217E+12 | -0.0183554 | -0.549683 | 3.1193265 |
| 117 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:15 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 118 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 119 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 120 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 121 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 122 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 123 | 5900.68 | 574927 | 0.1057464 | 5/6/19 22:23 | 0.0137884 | 0.4129166 | 4.59309E+13 | 3.119251 | 6.70217E+12 | 0.0035913 | 0.1075475 | 3.119251 |
| 124 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 125 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 126 | 5898.4 | 574930 | 0.1031447 | 5/6/19 22:35 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0425064 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0425064 |
| 127 | 5893.05 | 574930 | 0.1030511 | 5/6/19 22:37 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0397468 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0397468 |
| 128 | 5897.36 | 574930 | 0.1031265 | 5/6/19 22:42 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.04197 | 6.70217E+12 | -0.0236925 | -0.7095114 | 3.04197 |
| 129 | 5899.22 | 574931 | 0.1032757 | 5/6/19 22:47 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.046371 | 6.70217E+12 | -0.0155618 | -0.466024 | 3.046371 |
| 130 | 5901.5 | 574931 | 0.1033156 | 5/6/19 22:52 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.0475484 | 6.70217E+12 | -0.0215767 | -0.6461502 | 3.0475484 |
| 131 | 5895.01 | 574932 | 0.1028817 | 5/6/19 22:57 | 0.0137884 | 0.4129166 | 4.71645E+13 | 3.0347496 | 6.70217E+12 | -0.0188905 | -0.5657075 | 3.0347496 |
| 132 | 5882.85 | 574943 | 0.1003326 | 5/7/19 0:02 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9595589 | 6.70217E+12 | -0.002652 | -0.0794186 | 2.9595589 |
| 133 | 5891.99 | 574943 | 0.1004885 | 5/7/19 0:07 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9641571 | 6.70217E+12 | 0.0003922 | 0.0117451 | 2.9641571 |
| 134 | 5896.7 | 574944 | 0.1020246 | 5/7/19 0:12 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0094662 | 6.70217E+12 | 0.0109642 | 0.3283412 | 3.0094662 |
| 135 | 5903.84 | 574944 | 0.1021481 | 5/7/19 0:17 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0131102 | 6.70217E+12 | 0.0001877 | 0.005621 | 3.0131102 |
| 136 | 5911.06 | 574944 | 0.102273 | 5/7/19 0:22 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0167951 | 6.70217E+12 | -0.0190565 | -0.5706787 | 3.0167951 |
| 137 | 5885.39 | 574945 | 0.1028414 | 5/7/19 0:27 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0335618 | 6.70217E+12 | -0.005721 | -0.1713249 | 3.0335618 |
| 138 | 5895.99 | 574945 | 0.1030267 | 5/7/19 0:32 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0390254 | 6.70217E+12 | 0.005387 | 0.1613227 | 3.0390254 |
| 139 | 5897.07 | 574945 | 0.1030455 | 5/7/19 0:37 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0395821 | 6.70217E+12 | 0.0090961 | 0.2723979 | 3.0395821 |
| 140 | 5898.51 | 574945 | 0.1030707 | 5/7/19 0:42 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0403243 | 6.70217E+12 | 0.0000416 | 0.0012458 | 3.0403243 |
| 141 | 5901.99 | 574945 | 0.1031315 | 5/7/19 0:47 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0421181 | 6.70217E+12 | 0.0002217 | 0.0066392 | 3.0421181 |
| 142 | 5889.59 | 574946 | 0.1043197 | 5/7/19 0:52 | 0.0098383 | 0.2946243 | 4.64716E+13 | 3.0771656 | 6.70217E+12 | -0.0026672 | -0.0798737 | 3.0771656 |
| 143 | 5889.01 | 574947 | 0.1040736 | 5/7/19 0:57 | 0.0098383 | 0.2946243 | 4.65768E+13 | 3.0699085 | 6.70217E+12 | -0.0033037 | -0.0099034 | 3.0699085 |
| 144 | 5877.69 | 574947 | 0.1038736 | 5/7/19 1:02 | 0.0105202 | 0.3150449 | 4.65768E+13 | 3.0640074 | 6.70217E+12 | -0.0030311 | -0.0090169 | 3.0640074 |
| 145 | 5889.43 | 574948 | 0.1042298 | 5/7/19 1:07 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0745154 | 6.70217E+12 | -0.0001362 | -0.0040787 | 3.0745154 |
| 146 | 5887.99 | 574948 | 0.1042043 | 5/7/19 1:12 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0737637 | 6.70217E+12 | 0.0091898 | 0.2752039 | 3.0737637 |
| 147 | 5867.4 | 574948 | 0.1038399 | 5/7/19 1:17 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0630149 | 6.70217E+12 | 0.0091883 | 0.275159 | 3.0630149 |
| 148 | 5883.85 | 574950 | 0.1044213 | 5/7/19 1:22 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0801634 | 6.70217E+12 | 0.0098517 | 0.2950256 | 3.0801634 |
| 149 | 5871.24 | 574950 | 0.1041975 | 5/7/19 1:27 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0735621 | 6.70217E+12 | 0.0110652 | 0.3313659 | 3.0735621 |
| 150 | 5870.35 | 574950 | 0.1041817 | 5/7/19 1:32 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0730962 | 6.70217E+12 | 0.0117356 | 0.3514424 | 3.0730962 |
| 151 | 5880.51 | 574950 | 0.104362 | 5/7/19 1:37 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0784149 | 6.70217E+12 | 0.0114298 | 0.3422848 | 3.0784149 |
| 152 | 5887.56 | 574951 | 0.1056193 | 5/7/19 1:42 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1155019 | 6.70217E+12 | 0.0158031 | 0.4732502 | 3.1155019 |
| 153 | 5888.94 | 574951 | 0.1056441 | 5/7/19 1:47 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1162321 | 6.70217E+12 | 0.0139082 | 0.4165042 | 3.1162321 |
| 154 | 5890.07 | 574951 | 0.1056643 | 5/7/19 1:52 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1168301 | 6.70217E+12 | 0.0141407 | 0.4234668 | 3.1168301 |
| 155 | 5887.93 | 574952 | 0.1061226 | 5/7/19 1:57 | 0.0105202 | 0.3150449 | 4.56692E+13 | 3.1303483 | 6.70217E+12 | 0.0129154 | 0.3867732 | 3.1303483 |
| 156 | 5879.77 | 574953 | 0.1056897 | 5/7/19 2:02 | 0.011378 | 0.3407332 | 4.57927E+13 | 3.117579 | 6.70217E+12 | 0.0142018 | 0.4252966 | 3.117579 |
| 157 | 5880.52 | 574954 | 0.1043159 | 5/7/19 2:07 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0770561 | 6.70217E+12 | 0.0139436 | 0.4175643 | 3.0770561 |
| 158 | 5875.01 | 574954 | 0.1042182 | 5/7/19 2:12 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.074173 | 6.70217E+12 | 0.0105143 | 0.3148682 | 3.074173 |
| 159 | 5873.6 | 574954 | 0.1041932 | 5/7/19 2:17 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0734352 | 6.70217E+12 | 0.0094361 | 0.2825797 | 3.0734352 |
| 160 | 5871.85 | 574955 | 0.1044686 | 5/7/19 2:22 | 0.011378 | 0.3407332 | 4.62656E+13 | 3.0815582 | 6.70217E+12 | 0.0088951 | 0.2663786 | 3.0815582 |
| 161 | 5871.01 | 574956 | 0.103617 | 5/7/19 2:27 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0564397 | 6.70217E+12 | 0.0093072 | 0.278719 | 3.0564397 |
| 162 | 5859.85 | 574956 | 0.1034201 | 5/7/19 2:32 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0506298 | 6.70217E+12 | 0.0120542 | 0.3609831 | 3.0506298 |
| 163 | 5865.94 | 574956 | 0.1035275 | 5/7/ | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|------------|------------|------------|
| 191 | 5906.81 | 574966 | 0.1085559 | 5/7/19 4:57 | 0.0132424 | 0.3965657 | 4.47887E+13 | 3.2021242 | 6.70217E+12 | 0.014704 | 0.4403358 | 3.2021242 |
| 192 | 5914.74 | 574966 | 0.1087016 | 5/7/19 5:02 | 0.0163996 | 0.4911134 | 4.47887E+13 | 3.2064231 | 6.70217E+12 | 0.0082133 | 0.245961 | 3.2064231 |
| 193 | 5917.1 | 574967 | 0.109481 | 5/7/19 5:07 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2294129 | 6.70217E+12 | 0.0137796 | 0.4126531 | 3.2294129 |
| 194 | 5912.39 | 574967 | 0.1093939 | 5/7/19 5:12 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2268423 | 6.70217E+12 | 0.0156701 | 0.4692673 | 3.2268423 |
| 195 | 5894.35 | 574968 | 0.1094478 | 5/7/19 5:17 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2284315 | 6.70217E+12 | 0.0146488 | 0.4386827 | 3.2284315 |
| 196 | 5898.35 | 574968 | 0.109522 | 5/7/19 5:22 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2306223 | 6.70217E+12 | 0.0145908 | 0.4369458 | 3.2306223 |
| 197 | 5902.16 | 574969 | 0.1079698 | 5/7/19 5:27 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1848344 | 6.70217E+12 | 0.0155564 | 0.4658623 | 3.1848344 |
| 198 | 5900.85 | 574969 | 0.1079458 | 5/7/19 5:32 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1841275 | 6.70217E+12 | 0.0134736 | 0.4034894 | 3.1841275 |
| 199 | 5900.34 | 574969 | 0.1079365 | 5/7/19 5:37 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1838523 | 6.70217E+12 | 0.0130804 | 0.3917144 | 3.1838523 |
| 200 | 5898.32 | 574969 | 0.1078995 | 5/7/19 5:42 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1827623 | 6.70217E+12 | 0.0152049 | 0.4553361 | 3.1827623 |
| 201 | 5896.02 | 574970 | 0.1092694 | 5/7/19 5:47 | 0.0163996 | 0.4911134 | 4.44149E+13 | 3.2231712 | 6.70217E+12 | 0.0153738 | 0.4603941 | 3.2231712 |
| 202 | 5901.06 | 574971 | 0.1070272 | 5/7/19 5:52 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1570311 | 6.70217E+12 | 0.0162384 | 0.486286 | 3.1570311 |
| 203 | 5889.23 | 574971 | 0.1068126 | 5/7/19 5:57 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1507021 | 6.70217E+12 | 0.0142726 | 0.4274168 | 3.1507021 |
| 204 | 5888.81 | 574971 | 0.106805 | 5/7/19 6:02 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1504774 | 6.70217E+12 | 0.0140196 | 0.4198403 | 3.1504774 |
| 205 | 5888.88 | 574971 | 0.1068063 | 5/7/19 6:07 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1505149 | 6.70217E+12 | 0.0128572 | 0.3850303 | 3.1505149 |
| 206 | 5894.99 | 574971 | 0.1069171 | 5/7/19 6:12 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1537837 | 6.70217E+12 | 0.0139901 | 0.4189569 | 3.1537837 |
| 207 | 5888.93 | 574973 | 0.1088323 | 5/7/19 6:17 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1954116 | 6.70217E+12 | 0.0169327 | 0.5070779 | 3.1954116 |
| 208 | 5883.23 | 574973 | 0.1082235 | 5/7/19 6:22 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1923187 | 6.70217E+12 | 0.0161834 | 0.4846389 | 3.1923187 |
| 209 | 5874.07 | 574973 | 0.108055 | 5/7/19 6:27 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1873483 | 6.70217E+12 | 0.0160255 | 0.4799103 | 3.1873483 |
| 210 | 5873.01 | 574975 | 0.1081041 | 5/7/19 6:32 | 0.0219988 | 0.6587907 | 4.47185E+13 | 3.1887959 | 6.70217E+12 | 0.0161849 | 0.4846838 | 3.1887959 |
| 211 | 5877.1 | 574977 | 0.1051264 | 5/7/19 6:37 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1009613 | 6.70217E+12 | 0.0160886 | 0.4817999 | 3.1009613 |
| 212 | 5883.19 | 574977 | 0.1052353 | 5/7/19 6:42 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1041746 | 6.70217E+12 | 0.01829 | 0.5477245 | 3.1041746 |
| 213 | 5883.91 | 574979 | 0.1039877 | 5/7/19 6:47 | 0.0219988 | 0.6587907 | 4.6575E+13 | 3.0673739 | 6.70217E+12 | 0.0197193 | 0.5905273 | 3.0673739 |
| 214 | 5887.01 | 574980 | 0.1024096 | 5/7/19 6:52 | 0.0219988 | 0.6587907 | 4.73176E+13 | 3.0208243 | 6.70217E+12 | 0.0172624 | 0.5169513 | 3.0208243 |
| 215 | 5890.93 | 574981 | 0.1023627 | 5/7/19 6:57 | 0.0219988 | 0.6587907 | 4.73708E+13 | 3.0194404 | 6.70217E+12 | 0.0219934 | 0.658629 | 3.0194404 |
| 216 | 5891.99 | 574981 | 0.1023811 | 5/7/19 7:02 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0199837 | 6.70217E+12 | 0.0190854 | 0.5715441 | 3.0199837 |
| 217 | 5901.6 | 574981 | 0.1025481 | 5/7/19 7:07 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0249094 | 6.70217E+12 | 0.022021 | 0.6594555 | 3.0249094 |
| 218 | 5900.12 | 574982 | 0.1027094 | 5/7/19 7:12 | 0.0252156 | 0.7551232 | 4.72845E+13 | 3.0296666 | 6.70217E+12 | 0.019538 | 0.585098 | 3.0296666 |
| 219 | 5902.76 | 574983 | 0.1021815 | 5/7/19 7:17 | 0.0252156 | 0.7551232 | 4.75501E+13 | 3.0140942 | 6.70217E+12 | 0.0208005 | 0.6229056 | 3.0140942 |
| 220 | 5901.94 | 574985 | 0.1025203 | 5/7/19 7:22 | 0.0252156 | 0.7551232 | 4.73864E+13 | 3.0240881 | 6.70217E+12 | 0.0333844 | 0.9997515 | 3.0240881 |
| 221 | 5902.21 | 574986 | 0.1024856 | 5/7/19 7:27 | 0.0252156 | 0.7551232 | 4.74046E+13 | 3.0230648 | 6.70217E+12 | 0.0226755 | 0.6790556 | 3.0230648 |
| 222 | 5897.09 | 574987 | 0.1012514 | 5/7/19 7:32 | 0.0252156 | 0.7551232 | 4.79408E+13 | 3.0286604 | 6.70217E+12 | 0.0258656 | 0.7745885 | 3.0286604 |
| 223 | 5891.39 | 574988 | 0.1001624 | 5/7/19 7:37 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9545379 | 6.70217E+12 | 0.0217027 | 0.6499235 | 2.9545379 |
| 224 | 5896.98 | 574988 | 0.1002575 | 5/7/19 7:42 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9573413 | 6.70217E+12 | 0.0181457 | 0.5434032 | 2.9573413 |
| 225 | 5915.01 | 574989 | 0.0992602 | 5/7/19 7:47 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9279253 | 6.70217E+12 | 0.0175618 | 0.5259174 | 2.9279253 |
| 226 | 5909.89 | 574989 | 0.0991743 | 5/7/19 7:52 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9253909 | 6.70217E+12 | 0.0176235 | 0.5277651 | 2.9253909 |
| 227 | 5907.41 | 574990 | 0.0997661 | 5/7/19 7:57 | 0.0252156 | 0.7551232 | 4.87396E+13 | 2.9428486 | 6.70217E+12 | 0.0276065 | 0.62171227 | 2.9428486 |
| 228 | 5909.98 | 574990 | 0.0998095 | 5/7/19 8:02 | 0.0276548 | 0.8281691 | 4.87396E+13 | 2.9441289 | 6.70217E+12 | 0.03509108 | 10.5086088 | 10.5086088 |
| 229 | 5885.9 | 574991 | 0.1001084 | 5/7/19 8:07 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9529431 | 6.70217E+12 | 0.10618156 | 31.7978378 | 31.7978378 |
| 230 | 5894.01 | 574991 | 0.1002463 | 5/7/19 8:12 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9570118 | 6.70217E+12 | 0.3477068 | 10.4126596 | 10.4126596 |
| 231 | 5901.61 | 574991 | 0.1003756 | 5/7/19 8:17 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9608247 | 6.70217E+12 | 0.2233212 | 6.6877255 | 6.6877255 |
| 232 | 5901.01 | 574993 | 0.0990295 | 5/7/19 8:22 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9211197 | 6.70217E+12 | 0.1839307 | 5.5081114 | 5.5081114 |
| 233 | 5896.99 | 574993 | 0.0989662 | 5/7/19 8:27 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9191298 | 6.70217E+12 | 0.2097367 | 6.2817236 | 6.2817236 |
| 234 | 5903.12 | 574994 | 0.0985656 | 5/7/19 8:32 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9074343 | 6.70217E+12 | 0.0304959 | 0.9132506 | 2.9074343 |
| 235 | 5904.99 | 574994 | 0.0985968 | 5/7/19 8:37 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9083554 | 6.70217E+12 | 0.0229099 | 0.6860751 | 2.9083554 |
| 236 | 5928.02 | 574994 | 0.0989813 | 5/7/19 8:42 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9196982 | 6.70217E+12 | 0.032368 | 0.6967799 | 2.9196982 |
| 237 | 5918.93 | 574994 | 0.0988295 | 5/7/19 8:47 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9152212 | 6.70217E+12 | 0.0200853 | 0.6014878 | 2.9152212 |
| 238 | 5920.48 | 574994 | 0.0988554 | 5/7/19 8:52 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9159846 | 6.70217E+12 | 0.02447 | 0.7327949 | 2.9159846 |
| 239 | 5927.27 | 574996 | 0.1000578 | 5/7/19 8:57 | 0.0276548 | 0.8281691 | 4.8761E+13 | 2.9514506 | 6.70217E+12 | 0.0185494 | 0.5554927 | 2.9514506 |
| 240 | 5970.03 | 574997 | 0.0973284 | 5/7/19 9:02 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8709404 | 6.70217E+12 | 0.0182697 | 0.5471166 | 2.8709404 |
| 241 | 5896.92 | 574997 | 0.0961365 | 5/7/19 9:07 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8357824 | 6.70217E+12 | 0.0189375 | 0.567115 | 2.8357824 |
| 242 | 5876.01 | 574998 | 0.0954385 | 5/7/19 9:12 | 0.0268411 | 0.8038015 | 5.06789E+13 | 2.8151949 | 6.70217E+12 | 0.0203296 | 0.6088038 | 2.8151949 |
| 243 | 5818.78 | 574999 | 0.0935121 | 5/7/19 9:17 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.758369 | 6.70217E+12 | 0.0194987 | 0.5839212 | 2.758369 |
| 244 | 5836.61 | 574999 | 0.0937986 | 5/7/19 9:22 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7668213 | 6.70217E+12 | 0.0190273 | 0.5698044 | 2.7668213 |
| 245 | 5852.94 | 574999 | 0.094061 | 5/7/19 9:27 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7745624 | 6.70217E+12 | 0.0201623 | 0.6037937 | 2.7745624 |
| 246 | 5843.39 | 575000 | 0.0949282 | 5/7/19 9:32 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8001417 | 6.70217E+12 | 0.0195915 | 0.5867001 | 2.8001417 |
| 247 | 5840.9 | 575000 | 0.0948878 | 5/7/19 9:37 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.7989485 | 6.70217E+12 | 0.0208798 | 0.6252804 | 2.7989485 |
| 248 | 5844.44 | 575000 | 0.0949453 | 5/7/19 9:42 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8006448 | 6.70217E+12 | 0.0199536 | 0.5975438 | 2.8006448 |
| 249 | 5831.94 | 575001 | 0.0937986 | 5/7/19 9:47 | 0.0268411 | 0.8038015 | 5.06054E+13 | 2.7981392 | 6.70217E+12 | 0.0196606 | 0.5887694 | 2.7981392 |
| 250 | 5840.78 | 575003 | 0.0941941 | 5/7/19 9:52 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7784869 | 6.70217E+12 | 0.0187964 | 0.5628895 | 2.7784869 |
| 251 | 5839.47 | 575003 | 0.094173 | 5/7/19 9:57 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7778637 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7778637 |
| 252 | 5836.55 | 575003 | 0.0941259 | 5/7/19 10:03 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7764747 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7764747 |
| 253 | 5843.59 | 575003 | 0.0942394 | 5/7/19 10:08 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7798236 | 6.70217E+12 | 0.0202762 | 0.6072046 | 2.7798236 |
| 254 | 5851.93 | 575003 | 0.0943739 | 5/7/19 10:08 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.783791 | 6.70217E+12 | 0.0195808 | 0.5863797 | 2.783791 |
| 255 | 5840.6 | 575003 | 0.0941912 | 5/7/19 10:13 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7784013 | 6.70217E+12 | 0.0202654 | 0.6068812 | 2.7784013 |
| 256 | 5841.73 | 575003 | 0.0942024 | 5/7/19 10:18 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7789388 | 6.70217E+12 | 0.020167 | 0.6039344 | 2.7789388 |
| 257 | 5837.26 | 575004 | 0.0966021 | 5/7/19 10:23 | 0.0287164 | 0.8599605 | 4.97383E+13 | 2.8495172 | 6.70217E+12 | 0.0196567 | 0.5886526 | 2.8495172 |
| 258 | 5843.1 | 575004 | 0.0966 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|--------------|-----------|-------------|-----------|-----------|-----------|
| 286 | 5907.12 | 575011 | 0.1035688 | 5/7/19 12:13 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0550179 | 6.70217E+12 | 0.0195085 | 0.5842145 | 3.0550179 |
| 287 | 5908.19 | 575013 | 0.1040015 | 5/7/19 12:18 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0677806 | 6.70217E+12 | 0.0177224 | 0.5307268 | 3.0677806 |
| 288 | 5895.99 | 575013 | 0.1037867 | 5/7/19 12:23 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0614459 | 6.70217E+12 | 0.0163821 | 0.4905893 | 3.0614459 |
| 289 | 5898.02 | 575014 | 0.1043706 | 5/7/19 12:27 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0786681 | 6.70217E+12 | 0.0162962 | 0.4880169 | 3.0786681 |
| 290 | 5895.6 | 575014 | 0.1043278 | 5/7/19 12:32 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0774049 | 6.70217E+12 | 0.0164602 | 0.4929281 | 3.0774049 |
| 291 | 5887.34 | 575016 | 0.1041844 | 5/7/19 12:37 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0731761 | 6.70217E+12 | 0.0200409 | 0.6001582 | 3.0731761 |
| 292 | 5889.4 | 575016 | 0.1042209 | 5/7/19 12:42 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0742514 | 6.70217E+12 | 0.0215114 | 0.6441947 | 3.0742514 |
| 293 | 5893.65 | 575016 | 0.1042961 | 5/7/19 12:47 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0764699 | 6.70217E+12 | 0.020945 | 0.6272329 | 3.0764699 |
| 294 | 5893.83 | 575018 | 0.1033386 | 5/7/19 12:52 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0482275 | 6.70217E+12 | 0.0215906 | 0.6465665 | 3.0482275 |
| 295 | 5890.09 | 575018 | 0.103273 | 5/7/19 12:57 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0462932 | 6.70217E+12 | 0.0199465 | 0.5973312 | 3.0462932 |
| 296 | 5887.86 | 575018 | 0.1032339 | 5/7/19 13:02 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0451399 | 6.70217E+12 | 0.0182097 | 0.5453198 | 3.0451399 |
| 297 | 5877.45 | 575018 | 0.1030514 | 5/7/19 13:07 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0397559 | 6.70217E+12 | 0.0171154 | 0.5125492 | 3.0397559 |
| 298 | 5880.76 | 575018 | 0.1031095 | 5/7/19 13:12 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0414678 | 6.70217E+12 | 0.0158291 | 0.4740288 | 3.0414678 |
| 299 | 5885.01 | 575018 | 0.103184 | 5/7/19 13:17 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0436659 | 6.70217E+12 | 0.0156969 | 0.4700698 | 3.0436659 |
| 300 | 5886.65 | 575019 | 0.105185 | 5/7/19 13:22 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.10269 | 6.70217E+12 | 0.0194576 | 0.5826903 | 3.10269 |
| 301 | 5886.81 | 575019 | 0.1051878 | 5/7/19 13:27 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.1027744 | 6.70217E+12 | 0.0237637 | 0.7116436 | 3.1027744 |
| 302 | 5886.02 | 575019 | 0.1051737 | 5/7/19 13:32 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.102358 | 6.70217E+12 | 0.034183 | 1.0236669 | 3.102358 |
| 303 | 5878.86 | 575019 | 0.1050458 | 5/7/19 13:37 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0985841 | 6.70217E+12 | 0.4823059 | 14.443454 | 14.443454 |
| 304 | 5879.94 | 575019 | 0.1050651 | 5/7/19 13:42 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0991534 | 6.70217E+12 | 0.1343145 | 4.0222716 | 4.0222716 |
| 305 | 5872.78 | 575020 | 0.1055767 | 5/7/19 13:47 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1124242 | 6.70217E+12 | 0.0287544 | 0.8610984 | 3.1124242 |
| 306 | 5868.57 | 575020 | 0.105501 | 5/7/19 13:52 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1120117 | 6.70217E+12 | 0.0442637 | 1.3255503 | 3.1120117 |
| 307 | 5877.6 | 575020 | 0.1056633 | 5/7/19 13:57 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1168002 | 6.70217E+12 | 0.0156508 | 0.4686893 | 3.1168002 |
| 308 | 5880.3 | 575021 | 0.1070192 | 5/7/19 14:02 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.156795 | 6.70217E+12 | 0.0212368 | 0.6359714 | 3.156795 |
| 309 | 5873.1 | 575021 | 0.1068882 | 5/7/19 14:07 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1529297 | 6.70217E+12 | 0.0135226 | 0.4049568 | 3.1529297 |
| 310 | 5856.76 | 575021 | 0.1065908 | 5/7/19 14:12 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1441577 | 6.70217E+12 | 0.0161145 | 0.4825756 | 3.1441577 |
| 311 | 5835.32 | 575021 | 0.1062006 | 5/7/19 14:17 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1326478 | 6.70217E+12 | 0.021294 | 0.6376843 | 3.1326478 |
| 312 | 5823.7 | 575021 | 0.1059891 | 5/7/19 14:22 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1264097 | 6.70217E+12 | 0.0232619 | 0.6966164 | 3.1264097 |
| 313 | 5823.9 | 575021 | 0.1059927 | 5/7/19 14:27 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1265171 | 6.70217E+12 | 0.0186602 | 0.5588108 | 3.1265171 |
| 314 | 5844.51 | 575021 | 0.1063678 | 5/7/19 14:32 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1375814 | 6.70217E+12 | 0.0221179 | 0.6623574 | 3.1375814 |
| 315 | 5852.73 | 575022 | 0.1090264 | 5/7/19 14:37 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2160024 | 6.70217E+12 | 0.0160534 | 0.4807458 | 3.2160024 |
| 316 | 5842.59 | 575022 | 0.1088375 | 5/7/19 14:42 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2104306 | 6.70217E+12 | 0.0139152 | 0.4167139 | 3.2104306 |
| 317 | 5844.51 | 575023 | 0.1093454 | 5/7/19 14:47 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.225412 | 6.70217E+12 | 0.0096897 | 0.2901742 | 3.225412 |
| 318 | 5842.77 | 575023 | 0.1093128 | 5/7/19 14:52 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2244517 | 6.70217E+12 | 0.0082441 | 0.2468833 | 3.2244517 |
| 319 | 5843.27 | 575023 | 0.1093222 | 5/7/19 14:57 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2247277 | 6.70217E+12 | 0.0080116 | 0.2399207 | 3.2247277 |
| 320 | 5849.85 | 575023 | 0.1094453 | 5/7/19 15:02 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.228359 | 6.70217E+12 | 0.004172 | 0.1249375 | 3.228359 |
| 321 | 5844.11 | 575023 | 0.1093397 | 5/7/19 15:07 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2251913 | 6.70217E+12 | 0.0063173 | 0.1891821 | 3.2251913 |
| 322 | 5838.69 | 575023 | 0.1092365 | 5/7/19 15:12 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2222001 | 6.70217E+12 | 0.0074128 | 0.2219887 | 3.2222001 |
| 323 | 5843.57 | 575023 | 0.1093278 | 5/7/19 15:17 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2248932 | 6.70217E+12 | 0.0068169 | 0.2041434 | 3.2248932 |
| 324 | 5844.59 | 575023 | 0.1093469 | 5/7/19 15:22 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2254562 | 6.70217E+12 | 0.0173942 | 0.5208983 | 3.2254562 |
| 325 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:27 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0160868 | 0.481746 | 3.2284363 |
| 326 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:32 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0179579 | 0.5377792 | 3.2284363 |
| 327 | 5862.15 | 575023 | 0.1096754 | 5/7/19 15:37 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.235147 | 6.70217E+12 | 0.0185996 | 0.556996 | 3.235147 |
| 328 | 5861.7 | 575023 | 0.109667 | 5/7/19 15:42 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2348987 | 6.70217E+12 | 0.0164337 | 0.4921345 | 3.2348987 |
| 329 | 5871.48 | 575024 | 0.1144475 | 5/7/19 15:47 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.3759101 | 6.70217E+12 | 0.0172669 | 0.5170861 | 3.3759101 |
| 330 | 5859.1 | 575024 | 0.1142061 | 5/7/19 15:52 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.368792 | 6.70217E+12 | 0.0085437 | 0.2558553 | 3.368792 |
| 331 | 5854.1 | 575025 | 0.1144044 | 5/7/19 15:57 | 0.0200751 | 0.6011823 | 4.21197E+13 | 3.3746406 | 6.70217E+12 | 0.0200752 | 0.6011853 | 3.3746406 |
| 332 | 5843.22 | 575026 | 0.1144995 | 5/7/19 16:02 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3774456 | 6.70217E+12 | 0.0220984 | 0.6617734 | 3.3774456 |
| 333 | 5853.43 | 575026 | 0.1146996 | 5/7/19 16:07 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3833471 | 6.70217E+12 | 0.0156725 | 0.4693931 | 3.3833471 |
| 334 | 5856.16 | 575026 | 0.1147531 | 5/7/19 16:12 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.384925 | 6.70217E+12 | 0.0214597 | 0.6426465 | 3.384925 |
| 335 | 5854.02 | 575026 | 0.1147111 | 5/7/19 16:17 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3836881 | 6.70217E+12 | 0.0239835 | 0.7182259 | 3.3836881 |
| 336 | 5850.81 | 575026 | 0.1146482 | 5/7/19 16:22 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3818327 | 6.70217E+12 | 0.0167074 | 0.5003309 | 3.3818327 |
| 337 | 5854.62 | 575027 | 0.1163454 | 5/7/19 16:27 | 0.0216225 | 0.6475218 | 4.14207E+13 | 3.4318944 | 6.70217E+12 | 0.0156102 | 0.4674735 | 3.4318944 |
| 338 | 5855.8 | 575028 | 0.1157465 | 5/7/19 16:32 | 0.0216225 | 0.6475218 | 4.164335E+13 | 3.4142287 | 6.70217E+12 | 0.0163249 | 0.4888763 | 3.4142287 |
| 339 | 5856.74 | 575029 | 0.1142802 | 5/7/19 16:37 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3709755 | 6.70217E+12 | 0.0175314 | 0.525007 | 3.3709755 |
| 340 | 5868.02 | 575029 | 0.1145003 | 5/7/19 16:42 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3774679 | 6.70217E+12 | 0.0151098 | 0.4524881 | 3.3774679 |
| 341 | 5872.51 | 575029 | 0.1145879 | 5/7/19 16:47 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3800522 | 6.70217E+12 | 0.0146534 | 0.4388205 | 3.3800522 |
| 342 | 5871.99 | 575029 | 0.1145777 | 5/7/19 16:52 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3797529 | 6.70217E+12 | 0.0175759 | 0.5263396 | 3.3797529 |
| 343 | 5880.77 | 575029 | 0.1147491 | 5/7/19 16:57 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3848064 | 6.70217E+12 | 0.0063504 | 0.1901733 | 3.3848064 |
| 344 | 5886.53 | 575029 | 0.1148614 | 5/7/19 17:02 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3881217 | 6.70217E+12 | 0.0061338 | 0.1836869 | 3.3881217 |
| 345 | 5889.98 | 575029 | 0.1149288 | 5/7/19 17:07 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3901075 | 6.70217E+12 | 0.0028472 | 0.0852641 | 3.3901075 |
| 346 | 5885.6 | 575031 | 0.1147437 | 5/7/19 17:12 | 0.0204922 | 0.6136731 | 4.22212E+13 | 3.3846492 | 6.70217E+12 | 0.0111196 | 0.332995 | 3.3846492 |
| 347 | 5883.88 | 575032 | 0.1144564 | 5/7/19 17:17 | 0.0204922 | 0.6136731 | 4.23148E+13 | 3.3761744 | 6.70217E+12 | 0.0197231 | 0.5906411 | 3.3761744 |
| 348 | 5871.02 | 575033 | 0.114058 | 5/7/19 17:22 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.364421 | 6.70217E+12 | 0.013771 | 0.4123955 | 3.364421 |
| 349 | 5872.05 | 575033 | 0.114078 | 5/7/19 17:27 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.3650113 | 6.70217E+12 | 0.0099314 | 0.2974123 | 3.3650113 |
| 350 | 5878.77 | 575034 | 0.1147072 | 5/7/19 17:32 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3835727 | 6.70217E+12 | 0.0135307 | 0.4051994 | 3.3835727 |
| 351 | 5877.4 | 575034 | 0.1146805 | 5/7/19 17:37 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3827841 | 6.70217E+12 | 0.0143791 | 0.4306061 | 3.3827841 |
| 352 | 5880.39 | 575034 | 0.1147388 | 5/7/19 17:42 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3845051 | 6.70217E+12 | 0.0171643 | 0.5140136 | 3.3845051 |
| | | | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|
| 381 | 5785.64 | 575050 | 0.1067275 | 5/7/19 20:08 | 0.0214057 | 0.6410294 | 4.46214E+13 | 3.1481898 | 6.70217E+12 | 0.0200782 | 0.6012752 | 3.1481898 |
| 382 | 5794.65 | 575051 | 0.1065264 | 5/7/19 20:13 | 0.0214057 | 0.6410294 | 4.47753E+13 | 3.1422582 | 6.70217E+12 | 0.0189119 | 0.5663484 | 3.1422582 |
| 383 | 5794.99 | 575052 | 0.105856 | 5/7/19 20:18 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1224836 | 6.70217E+12 | 0.0168789 | 0.5054668 | 3.1224836 |
| 384 | 5777.32 | 575052 | 0.1055332 | 5/7/19 20:23 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1129625 | 6.70217E+12 | 0.0188787 | 0.5653534 | 3.1129625 |
| 385 | 5779.44 | 575052 | 0.1055719 | 5/7/19 20:28 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1141049 | 6.70217E+12 | 0.0185028 | 0.5540972 | 3.1141049 |
| 386 | 5784.49 | 575053 | 0.1069047 | 5/7/19 20:33 | 0.0214057 | 0.6410294 | 4.45386E+13 | 3.1534189 | 6.70217E+12 | 0.0168679 | 0.5051374 | 3.1534189 |
| 387 | 5792.26 | 575054 | 0.1071284 | 5/7/19 20:38 | 0.0214057 | 0.6410294 | 4.45053E+13 | 3.1600161 | 6.70217E+12 | 0.0100913 | 0.3022008 | 3.1600161 |
| 388 | 5794.99 | 575055 | 0.1078127 | 5/7/19 20:43 | 0.0214057 | 0.6410294 | 4.42437E+13 | 3.1802017 | 6.70217E+12 | 0.0159387 | 0.4773109 | 3.1802017 |
| 389 | 5798.99 | 575056 | 0.1065136 | 5/7/19 20:48 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1418807 | 6.70217E+12 | 0.0155694 | 0.4662516 | 3.1418807 |
| 390 | 5799.99 | 575056 | 0.1065319 | 5/7/19 20:53 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1424225 | 6.70217E+12 | 0.0120816 | 0.3618036 | 3.1424225 |
| 391 | 5792.47 | 575056 | 0.1063938 | 5/7/19 20:58 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1383482 | 6.70217E+12 | 0.0121052 | 0.3625104 | 3.1383482 |
| 392 | 5783.99 | 575057 | 0.1071229 | 5/7/19 21:03 | 0.0187353 | 0.5610598 | 4.4444E+13 | 3.1598544 | 6.70217E+12 | 0.0062084 | 0.1859149 | 3.1598544 |
| 393 | 5798.01 | 575060 | 0.1064196 | 5/7/19 21:08 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1391083 | 6.70217E+12 | 0.0101617 | 0.304309 | 3.1391083 |
| 394 | 5804.99 | 575060 | 0.1065477 | 5/7/19 21:13 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1428873 | 6.70217E+12 | 0.0147359 | 0.4412911 | 3.1428873 |
| 395 | 5804.47 | 575060 | 0.1065382 | 5/7/19 21:18 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1426058 | 6.70217E+12 | 0.0161425 | 0.4834141 | 3.1426058 |
| 396 | 5797.19 | 575061 | 0.1077196 | 5/7/19 21:23 | 0.0187353 | 0.5610598 | 4.42987E+13 | 3.1774565 | 6.70217E+12 | 0.0166747 | 0.4993517 | 3.1774565 |
| 397 | 5796.01 | 575062 | 0.1073179 | 5/7/19 21:28 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1656063 | 6.70217E+12 | 0.0162576 | 0.4868609 | 3.1656063 |
| 398 | 5796.91 | 575062 | 0.1073346 | 5/7/19 21:33 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1660978 | 6.70217E+12 | 0.0154972 | 0.4640895 | 3.1660978 |
| 399 | 5804.49 | 575063 | 0.1082426 | 5/7/19 21:38 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1928815 | 6.70217E+12 | 0.0140195 | 0.4198373 | 3.1928815 |
| 400 | 5807.51 | 575063 | 0.1082989 | 5/7/19 21:43 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1945427 | 6.70217E+12 | 0.0138085 | 0.4135185 | 3.1945427 |
| 401 | 5806.56 | 575064 | 0.107581 | 5/7/19 21:48 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1733683 | 6.70217E+12 | 0.0123646 | 0.3702786 | 3.1733683 |
| 402 | 5797.78 | 575064 | 0.1074184 | 5/7/19 21:53 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1685699 | 6.70217E+12 | 0.0135325 | 0.4052533 | 3.1685699 |
| 403 | 5793.65 | 575064 | 0.1073419 | 5/7/19 21:58 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1663128 | 6.70217E+12 | 0.0143717 | 0.4303845 | 3.1663128 |
| 404 | 5778.02 | 575065 | 0.1070536 | 5/7/19 22:03 | 0.0092857 | 0.2780758 | 4.44269E+13 | 3.1578114 | 6.70217E+12 | 0.0159167 | 0.4766521 | 3.1578114 |
| 405 | 5773.43 | 575066 | 0.1052104 | 5/7/19 22:08 | 0.0092857 | 0.2780758 | 4.51693E+13 | 3.1034402 | 6.70217E+12 | 0.0153253 | 0.4589417 | 3.1034402 |
| 406 | 5779.39 | 575067 | 0.1054664 | 5/7/19 22:13 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1109906 | 6.70217E+12 | 0.0139439 | 0.4175733 | 3.1109906 |
| 407 | 5791.59 | 575067 | 0.105689 | 5/7/19 22:18 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1175577 | 6.70217E+12 | 0.0131096 | 0.3925888 | 3.1175577 |
| 408 | 5790.02 | 575067 | 0.1056603 | 5/7/19 22:23 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1167126 | 6.70217E+12 | 0.0122573 | 0.3670653 | 3.1167126 |
| 409 | 5782.94 | 575067 | 0.1055311 | 5/7/19 22:28 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1129015 | 6.70217E+12 | 0.0136306 | 0.408191 | 3.1129015 |
| 410 | 5775.43 | 575067 | 0.1053941 | 5/7/19 22:33 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1088589 | 6.70217E+12 | 0.0135185 | 0.404834 | 3.1088589 |
| 411 | 5779.99 | 575068 | 0.1067775 | 5/7/19 22:38 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1496656 | 6.70217E+12 | 0.0130395 | 0.3904896 | 3.1496656 |
| 412 | 5785.55 | 575068 | 0.1068802 | 5/7/19 22:43 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1526954 | 6.70217E+12 | 0.0132167 | 0.3957961 | 3.1526954 |
| 413 | 5776.9 | 575070 | 0.1064823 | 5/7/19 22:48 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1409571 | 6.70217E+12 | 0.0151927 | 0.4549707 | 3.1409571 |
| 414 | 5782.35 | 575070 | 0.1065827 | 5/7/19 22:53 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1439203 | 6.70217E+12 | 0.0127496 | 0.381808 | 3.1439203 |
| 415 | 5778.56 | 575070 | 0.1065129 | 5/7/19 22:58 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1418596 | 6.70217E+12 | 0.01094 | 0.3276165 | 3.1418596 |
| 416 | 5807.88 | 575077 | 0.1057164 | 5/8/19 0:03 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1183659 | 6.70217E+12 | 0.0116913 | 0.3501155 | 3.1183659 |
| 417 | 5804.11 | 575077 | 0.1056478 | 5/8/19 0:08 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1163417 | 6.70217E+12 | 0.0120928 | 0.3621391 | 3.1163417 |
| 418 | 5801.23 | 575078 | 0.1058179 | 5/8/19 0:13 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1213604 | 6.70217E+12 | 0.0121536 | 0.3639598 | 3.1213604 |
| 419 | 5791.66 | 575078 | 0.1056434 | 5/8/19 0:18 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1162113 | 6.70217E+12 | 0.0124538 | 0.3729498 | 3.1162113 |
| 420 | 5795.5 | 575078 | 0.1057134 | 5/8/19 0:23 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1182774 | 6.70217E+12 | 0.0132227 | 0.3959758 | 3.1182774 |
| 421 | 5795.98 | 575079 | 0.1065412 | 5/8/19 0:28 | 0.010744 | 0.321747 | 4.47794E+13 | 3.1426942 | 6.70217E+12 | 0.0133711 | 0.4004199 | 3.1426942 |
| 422 | 5799.99 | 575081 | 0.102499 | 5/8/19 0:33 | 0.010744 | 0.321747 | 4.65775E+13 | 3.0234621 | 6.70217E+12 | 0.0173409 | 0.5193022 | 3.0234621 |
| 423 | 5804.41 | 575082 | 0.1023697 | 5/8/19 0:38 | 0.010744 | 0.321747 | 4.66719E+13 | 3.0196463 | 6.70217E+12 | 0.0172819 | 0.5175353 | 3.0196463 |
| 424 | 5804.82 | 575084 | 0.1015622 | 5/8/19 0:43 | 0.010744 | 0.321747 | 4.70463E+13 | 2.9958274 | 6.70217E+12 | 0.0175389 | 0.5252316 | 2.9958274 |
| 425 | 5802.49 | 575086 | 0.0989662 | 5/8/19 0:48 | 0.010744 | 0.321747 | 4.82609E+13 | 2.9192535 | 6.70217E+12 | 0.0173835 | 0.5205779 | 2.9192535 |
| 426 | 5795.31 | 575086 | 0.0988438 | 5/8/19 0:53 | 0.010744 | 0.321747 | 4.82609E+13 | 2.9156412 | 6.70217E+12 | 0.0147548 | 0.4418571 | 2.9156412 |
| 427 | 5799.55 | 575087 | 0.0990391 | 5/8/19 0:58 | 0.010744 | 0.321747 | 4.8201E+13 | 2.9214025 | 6.70217E+12 | 0.0135535 | 0.4058821 | 2.9214025 |
| 428 | 5810.52 | 575087 | 0.0992264 | 5/8/19 1:03 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9269284 | 6.70217E+12 | 0.0126685 | 0.3793793 | 2.9269284 |
| 429 | 5818.01 | 575087 | 0.0993543 | 5/8/19 1:08 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9307013 | 6.70217E+12 | 0.0083531 | 0.2501475 | 2.9307013 |
| 430 | 5819.24 | 575089 | 0.0985572 | 5/8/19 1:13 | 0.0116366 | 0.3484774 | 4.86011E+13 | 2.9071881 | 6.70217E+12 | 0.0126493 | 0.3788044 | 2.9071881 |
| 431 | 5817.19 | 575090 | 0.0973429 | 5/8/19 1:18 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8713676 | 6.70217E+12 | 0.0126278 | 0.3781605 | 2.8713676 |
| 432 | 5820.91 | 575090 | 0.0974051 | 5/8/19 1:23 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8732038 | 6.70217E+12 | 0.0125071 | 0.374546 | 2.8732038 |
| 433 | 5831.99 | 575090 | 0.0975905 | 5/8/19 1:28 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8786729 | 6.70217E+12 | 0.0125147 | 0.3747735 | 2.8786729 |
| 434 | 5837.72 | 575090 | 0.0976864 | 5/8/19 1:33 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8815012 | 6.70217E+12 | 0.0030723 | 0.0920051 | 2.8815012 |
| 435 | 5825.57 | 575090 | 0.0974831 | 5/8/19 1:38 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.875504 | 6.70217E+12 | 0.0007008 | 0.0209866 | 2.875504 |
| 436 | 5834.9 | 575090 | 0.0976392 | 5/8/19 1:43 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8801093 | 6.70217E+12 | 0.002842 | 0.0851084 | 2.8801093 |
| 437 | 5839.94 | 575090 | 0.0977235 | 5/8/19 1:49 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.882597 | 6.70217E+12 | 0.0029206 | 0.0874622 | 2.882597 |
| 438 | 5834.68 | 575090 | 0.0976355 | 5/8/19 1:54 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8800007 | 6.70217E+12 | 0.0037273 | 0.1116022 | 2.8800007 |
| 439 | 5827.66 | 575090 | 0.0975181 | 5/8/19 1:59 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8765356 | 6.70217E+12 | 0.0045235 | 0.1354637 | 2.8765356 |
| 440 | 5833.57 | 575090 | 0.097617 | 5/8/19 2:04 | 0.0116665 | 0.3583568 | 4.91901E+13 | 2.8794528 | 6.70217E+12 | 0.005794 | 0.173511 | 2.8794528 |
| 441 | 5837.02 | 575090 | 0.0976747 | 5/8/19 2:09 | 0.0116665 | 0.3583568 | 4.91901E+13 | 2.8811557 | 6.70217E+12 | 0.0120927 | 0.3621361 | 2.8811557 |
| 442 | 5834.82 | 575091 | 0.1021121 | 5/8/19 2:14 | 0.0116665 | 0.3583568 | 4.70347E+13 | 3.0120484 | 6.70217E+12 | 0.0138694 | 0.4153423 | 3.0120484 |
| 443 | 5832.01 | 575091 | 0.1020629 | 5/8/19 2:19 | 0.0116665 | 0.3583568 | 4.70347E+13 | 3.0105978 | 6.70217E+12 | 0.0243003 | 0.727713 | 3.0105978 |
| 444 | 5827.28 | 575091 | 0.1019802 | 5/8/19 2:24 | 0.0116665 | 0.3583568 | 4.70347E+13 | 3.0081561 | 6.70217E+12 | 0.0146496 | 0.4387067 | 3.0081561 |
| 445 | 5814.3 | 575091 | 0.101753 | 5/8/19 2:29 | 0.0116665 | 0.3583568 | 4.70347E+13 | 3.0014556 | 6.70217E+12 | 0.013417 | 0.4017944 | 3.0014556 |
| 446 | 5822.06 | 575092 | 0.1015212 | 5/8/19 2:34 | 0.0116665 | 0.3583568 | 4.72051E+13 | 2.9946169 | 6.70217E+12 | 0.013794 | 0.4130843 | 2.9946169 |
| 447 | 5827.69 | 575092 | 0.1016193 | 5/8/19 2:39 | 0.0116665 | 0.3583568 | 4.72051E+13 | 2.9975127 | 6.70217E+12 | 0.0134243 | 0.402013 | 2.9975127 |
| 448 | 5825.01 | 575094 | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|--------------|-----------|-------------|------------|------------|-----------|
| 476 | 5821.06 | 575109 | 0.1057288 | 5/8/19 5:04 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1187323 | 6.70217E+12 | 0.0087613 | 0.2623717 | 3.1187323 |
| 477 | 5830.24 | 575109 | 0.1058956 | 5/8/19 5:09 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1236507 | 6.70217E+12 | 0.0125147 | 0.3747735 | 3.1236507 |
| 478 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:14 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0158514 | 0.4746966 | 3.1375074 |
| 479 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:19 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0145818 | 0.4366763 | 3.1375074 |
| 480 | 5811.28 | 575111 | 0.1058572 | 5/8/19 5:24 | 0.0172785 | 0.5174335 | 4.51877E+13 | 3.1225197 | 6.70217E+12 | 0.0159657 | 0.4781195 | 3.1225197 |
| 481 | 5814.19 | 575113 | 0.1054793 | 5/8/19 5:29 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1113735 | 6.70217E+12 | 0.0189354 | 0.5670521 | 3.1113735 |
| 482 | 5822.89 | 575113 | 0.1056372 | 5/8/19 5:34 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1160292 | 6.70217E+12 | 0.0168377 | 0.5042332 | 3.1160292 |
| 483 | 5825.6 | 575113 | 0.1056863 | 5/8/19 5:39 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1174794 | 6.70217E+12 | 0.0142709 | 0.4273659 | 3.1174794 |
| 484 | 5825.47 | 575114 | 0.1057728 | 5/8/19 5:44 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1200304 | 6.70217E+12 | 0.0162737 | 0.4873431 | 3.1200304 |
| 485 | 5830.59 | 575114 | 0.1058658 | 5/8/19 5:49 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1227726 | 6.70217E+12 | 0.016296 | 0.4880109 | 3.1227726 |
| 486 | 5839.34 | 575114 | 0.1060247 | 5/8/19 5:54 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.127459 | 6.70217E+12 | 0.0078999 | 0.2365757 | 3.127459 |
| 487 | 5838.51 | 575115 | 0.1055129 | 5/8/19 5:59 | 0.0172785 | 0.5174335 | 4.55475E+13 | 3.1123637 | 6.70217E+12 | 0.0157437 | 0.4714713 | 3.1123637 |
| 488 | 5829.09 | 575117 | 0.1054774 | 5/8/19 6:04 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1113164 | 6.70217E+12 | 0.015334 | 0.4592022 | 3.1113164 |
| 489 | 5826.85 | 575117 | 0.1054369 | 5/8/19 6:09 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1101208 | 6.70217E+12 | 0.0095667 | 0.2864908 | 3.1101208 |
| 490 | 5838.53 | 575118 | 0.105587 | 5/8/19 6:14 | 0.0211899 | 0.6345669 | 4.55157E+13 | 3.1145494 | 6.70217E+12 | 0.0126575 | 0.3790499 | 3.1145494 |
| 491 | 5843.74 | 575119 | 0.1054459 | 5/8/19 6:19 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1103869 | 6.70217E+12 | 0.0159603 | 0.4779578 | 3.1103869 |
| 492 | 5843.03 | 575119 | 0.1054331 | 5/8/19 6:24 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.110009 | 6.70217E+12 | 0.0169939 | 0.5089107 | 3.110009 |
| 493 | 5842.51 | 575119 | 0.1054237 | 5/8/19 6:29 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1097323 | 6.70217E+12 | 0.0176305 | 0.5279747 | 3.1097323 |
| 494 | 5859.77 | 575120 | 0.1055662 | 5/8/19 6:34 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1139353 | 6.70217E+12 | 0.0182108 | 0.5453528 | 3.1139353 |
| 495 | 5849.16 | 575120 | 0.1053751 | 5/8/19 6:39 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1082971 | 6.70217E+12 | 0.0222873 | 0.6674303 | 3.1082971 |
| 496 | 5859.91 | 575120 | 0.1055687 | 5/8/19 6:44 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1140097 | 6.70217E+12 | 0.0240313 | 0.7196573 | 3.1140097 |
| 497 | 5874.94 | 575120 | 0.1058395 | 5/8/19 6:49 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1219968 | 6.70217E+12 | 0.0247785 | 0.7420335 | 3.1219968 |
| 498 | 5849.77 | 575122 | 0.1058251 | 5/8/19 6:54 | 0.0211899 | 0.6345669 | 4.55007E+13 | 3.1215733 | 6.70217E+12 | 0.035146 | 1.0520555 | 3.1215733 |
| 499 | 5847.52 | 575123 | 0.1059851 | 5/8/19 6:59 | 0.0211899 | 0.6345669 | 4.54146E+13 | 3.1262913 | 6.70217E+12 | 0.0331317 | 0.992184 | 3.1262913 |
| 500 | 5858.74 | 575123 | 0.1061884 | 5/8/19 7:04 | 0.0245969 | 0.7365952 | 4.54146E+13 | 3.1322899 | 6.70217E+12 | 0.0225584 | 0.6755489 | 3.1322899 |
| 501 | 5868.24 | 575124 | 0.1046351 | 5/8/19 7:09 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0864695 | 6.70217E+12 | 0.0227738 | 0.6819994 | 3.0864695 |
| 502 | 5860.28 | 575124 | 0.1044931 | 5/8/19 7:14 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0822829 | 6.70217E+12 | 0.0189208 | 0.5666149 | 3.0822829 |
| 503 | 5864.03 | 575124 | 0.10456 | 5/8/19 7:19 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0842552 | 6.70217E+12 | 0.0206953 | 0.6197553 | 3.0842552 |
| 504 | 5860.24 | 575125 | 0.1049602 | 5/8/19 7:24 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0960609 | 6.70217E+12 | 0.0230157 | 0.6892435 | 3.0960609 |
| 505 | 5855.35 | 575125 | 0.1048726 | 5/8/19 7:29 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0934774 | 6.70217E+12 | 0.0225888 | 0.6764593 | 3.0934774 |
| 506 | 5861.24 | 575125 | 0.1049781 | 5/8/19 7:34 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0965892 | 6.70217E+12 | 0.0205788 | 0.6162665 | 3.0965892 |
| 507 | 5864.22 | 575125 | 0.1050315 | 5/8/19 7:39 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0981636 | 6.70217E+12 | 0.0197214 | 0.5905902 | 3.0981636 |
| 508 | 5855.4 | 575125 | 0.1047335 | 5/8/19 7:44 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0935039 | 6.70217E+12 | 0.0198359 | 0.5940191 | 3.0935039 |
| 509 | 5848.68 | 575126 | 0.102448 | 5/8/19 7:49 | 0.0245969 | 0.7365952 | 4.69919E+13 | 3.0219576 | 6.70217E+12 | 0.0296779 | 0.8887542 | 3.0219576 |
| 510 | 5843.55 | 575127 | 0.1024751 | 5/8/19 7:54 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0227572 | 6.70217E+12 | 0.0208223 | 0.6235585 | 3.0227572 |
| 511 | 5851.77 | 575127 | 0.1026193 | 5/8/19 7:59 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0270092 | 6.70217E+12 | 0.0230156 | 0.6892405 | 3.0270092 |
| 512 | 5849.49 | 575127 | 0.1025793 | 5/8/19 8:04 | 0.0242095 | 0.7249938 | 4.69382E+13 | 3.0258298 | 6.70217E+12 | 0.0232039 | 0.6948795 | 3.0258298 |
| 513 | 5849.48 | 575129 | 0.1024537 | 5/8/19 8:09 | 0.0242095 | 0.7249938 | 4.69957E+13 | 3.0221242 | 6.70217E+12 | 0.0199092 | 0.5962142 | 3.0221242 |
| 514 | 5848.2 | 575130 | 0.1023337 | 5/8/19 8:14 | 0.0242095 | 0.7249938 | 4.704085E+13 | 3.0185855 | 6.70217E+12 | 0.0193885 | 0.5806209 | 3.0185855 |
| 515 | 5833.78 | 575131 | 0.1018159 | 5/8/19 8:19 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0033105 | 6.70217E+12 | 0.0228642 | 0.6847066 | 3.0033105 |
| 516 | 5845.68 | 575131 | 0.1020236 | 5/8/19 8:24 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0094368 | 6.70217E+12 | 0.0197323 | 0.5909166 | 3.0094368 |
| 517 | 5850.11 | 575133 | 0.101054 | 5/8/19 8:29 | 0.0242095 | 0.7249938 | 4.76518E+13 | 2.9808362 | 6.70217E+12 | 0.0210194 | 0.629461 | 2.9808362 |
| 518 | 5849.94 | 575134 | 0.101143 | 5/8/19 8:34 | 0.0242095 | 0.7249938 | 4.76084E+13 | 2.9834634 | 6.70217E+12 | 0.0253845 | 0.7601812 | 2.9834634 |
| 519 | 5844.18 | 575135 | 0.1003625 | 5/8/19 8:39 | 0.0242095 | 0.7249938 | 4.79315E+13 | 2.9604385 | 6.70217E+12 | 0.0187378 | 0.5611347 | 2.9604385 |
| 520 | 5844.99 | 575136 | 0.1007176 | 5/8/19 8:45 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9709144 | 6.70217E+12 | 0.0201853 | 0.6044825 | 2.9709144 |
| 521 | 5856.45 | 575136 | 0.1009151 | 5/8/19 8:50 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9767393 | 6.70217E+12 | 0.0212258 | 0.635642 | 2.9767393 |
| 522 | 5861.07 | 575136 | 0.1009947 | 5/8/19 8:55 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9790876 | 6.70217E+12 | 0.0203371 | 0.6090284 | 2.9790876 |
| 523 | 5859.02 | 575136 | 0.1009594 | 5/8/19 9:00 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9780456 | 6.70217E+12 | 0.0193291 | 0.5788421 | 2.9780456 |
| 524 | 5865.61 | 575136 | 0.1010729 | 5/8/19 9:05 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9813952 | 6.70217E+12 | 0.0272511 | 0.8160796 | 2.9813952 |
| 525 | 5854.26 | 575136 | 0.1008773 | 5/8/19 9:10 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9756262 | 6.70217E+12 | 0.0236817 | 0.709188 | 2.9756262 |
| 526 | 5831.3 | 575137 | 0.1018101 | 5/8/19 9:15 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0031404 | 6.70217E+12 | 0.0214968 | 0.64376289 | 3.0031404 |
| 527 | 5839.16 | 575137 | 0.1019473 | 5/8/19 9:20 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0071883 | 6.70217E+12 | 0.02149291 | 0.64364101 | 3.0071883 |
| 528 | 5843.2 | 575137 | 0.1020179 | 5/8/19 9:25 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0092689 | 6.70217E+12 | 0.0257593 | 0.8244108 | 3.0092689 |
| 529 | 5841.15 | 575137 | 0.1019821 | 5/8/19 9:30 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0082132 | 6.70217E+12 | 0.0429576 | 1.2864369 | 3.0082132 |
| 530 | 5849.05 | 575139 | 0.1011946 | 5/8/19 9:35 | 0.0244939 | 0.7335107 | 4.75777E+13 | 2.9849829 | 6.70217E+12 | 0.0232529 | 0.6963468 | 2.9849829 |
| 531 | 5857.36 | 575140 | 0.0999202 | 5/8/19 9:40 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.947394 | 6.70217E+12 | 0.0229391 | 0.6869496 | 2.947394 |
| 532 | 5857.91 | 575140 | 0.0999296 | 5/8/19 9:45 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9476708 | 6.70217E+12 | 0.0235124 | 0.704118 | 2.9476708 |
| 533 | 5864.03 | 575140 | 0.100034 | 5/8/19 9:50 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9507504 | 6.70217E+12 | 0.0259313 | 0.776556 | 2.9507504 |
| 534 | 5868.53 | 575142 | 0.0972217 | 5/8/19 9:55 | 0.0244939 | 0.7335107 | 4.96861E+13 | 2.8677931 | 6.70217E+12 | 0.0202099 | 0.6052191 | 2.8677931 |
| 535 | 5857.64 | 575143 | 0.0964425 | 5/8/19 10:00 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8448083 | 6.70217E+12 | 0.018816 | 0.5634765 | 2.8448083 |
| 536 | 5866.7 | 575143 | 0.0965916 | 5/8/19 10:05 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8492083 | 6.70217E+12 | 0.0166105 | 0.4974291 | 2.8492083 |
| 537 | 5863.82 | 575143 | 0.0965442 | 5/8/19 10:10 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8478096 | 6.70217E+12 | 0.0189675 | 0.5680134 | 2.8478096 |
| 538 | 5866.01 | 575143 | 0.0965803 | 5/8/19 10:15 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8488732 | 6.70217E+12 | 0.0207265 | 0.6206896 | 2.8488732 |
| 539 | 5864.99 | 575144 | 0.0934511 | 5/8/19 10:20 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7565705 | 6.70217E+12 | 0.0230154 | 0.6892345 | 2.7565705 |
| 540 | 5879.4 | 575144 | 0.0936807 | 5/8/19 10:25 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7633433 | 6.70217E+12 | 0.022665 | 0.6787412 | 2.7633433 |
| 541 | 5893.62 | 575144 | 0.0939073 | 5/8/19 10:30 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7700267 | 6.70217E+12 | 0.026083 | 0.7810989 | 2.7700267 |
| 542 | 5896.01 | 575144 | 0.0939454 | 5/8/19 10:35 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.77115 | 6.70217E+12 | 0.0230839 | 0.6912859 | 2.77115 |
| 543 | 5888.01 | 575145 | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|
| 571 | 5880.23 | 575159 | 0.0935804 | 5/8/19 13:01 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7603855 | 6.70217E+12 | 0.0220558 | 0.6604977 | 2.7603855 |
| 572 | 5884.79 | 575159 | 0.093653 | 5/8/19 13:06 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7625261 | 6.70217E+12 | 0.0232481 | 0.6962031 | 2.7625261 |
| 573 | 5887.12 | 575159 | 0.0936901 | 5/8/19 13:11 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7636199 | 6.70217E+12 | 0.0228614 | 0.6846227 | 2.7636199 |
| 574 | 5882.83 | 575159 | 0.0936218 | 5/8/19 13:16 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.761606 | 6.70217E+12 | 0.0286842 | 0.8589962 | 2.761606 |
| 575 | 5887.05 | 575160 | 0.095298 | 5/8/19 13:21 | 0.0224056 | 0.670973 | 5.0849E+13 | 2.8110496 | 6.70217E+12 | 0.0210217 | 0.6295298 | 2.8110496 |
| 576 | 5885.01 | 575161 | 0.0954767 | 5/8/19 13:26 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8163217 | 6.70217E+12 | 0.0209618 | 0.627736 | 2.8163217 |
| 577 | 5877.03 | 575161 | 0.0953473 | 5/8/19 13:31 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8125028 | 6.70217E+12 | 0.019652 | 0.5885119 | 2.8125028 |
| 578 | 5864.5 | 575163 | 0.0928787 | 5/8/19 13:36 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7396868 | 6.70217E+12 | 0.0197032 | 0.5900452 | 2.7396868 |
| 579 | 5878.37 | 575163 | 0.0930984 | 5/8/19 13:41 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7461664 | 6.70217E+12 | 0.0229336 | 0.6867849 | 2.7461664 |
| 580 | 5884.42 | 575163 | 0.0931942 | 5/8/19 13:46 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7489927 | 6.70217E+12 | 0.027902 | 0.8355719 | 2.7489927 |
| 581 | 5882.28 | 575163 | 0.0931603 | 5/8/19 13:51 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.747993 | 6.70217E+12 | 0.0286405 | 0.8576875 | 2.747993 |
| 582 | 5884.83 | 575163 | 0.0932007 | 5/8/19 13:56 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7491843 | 6.70217E+12 | 0.0262751 | 0.7868517 | 2.7491843 |
| 583 | 5884.52 | 575164 | 0.0946934 | 5/8/19 14:01 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.793214 | 6.70217E+12 | 0.027166 | 0.8135311 | 2.793214 |
| 584 | 5879.67 | 575164 | 0.0946153 | 5/8/19 14:06 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7909119 | 6.70217E+12 | 0.0243166 | 0.7282011 | 2.7909119 |
| 585 | 5877.49 | 575164 | 0.0945802 | 5/8/19 14:11 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7898771 | 6.70217E+12 | 0.0208701 | 0.6249899 | 2.7898771 |
| 586 | 5887.28 | 575166 | 0.0950829 | 5/8/19 14:16 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8047039 | 6.70217E+12 | 0.0218292 | 0.6537118 | 2.8047039 |
| 587 | 5884.05 | 575166 | 0.0950307 | 5/8/19 14:21 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8031651 | 6.70217E+12 | 0.0217633 | 0.6517383 | 2.8031651 |
| 588 | 5885.12 | 575166 | 0.095048 | 5/8/19 14:26 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8036749 | 6.70217E+12 | 0.0217781 | 0.6521815 | 2.8036749 |
| 589 | 5902.91 | 575167 | 0.0961455 | 5/8/19 14:31 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.836049 | 6.70217E+12 | 0.021451 | 0.6423859 | 2.836049 |
| 590 | 5902.72 | 575167 | 0.0961424 | 5/8/19 14:36 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8359577 | 6.70217E+12 | 0.1801174 | 5.3939157 | 5.3939157 |
| 591 | 5906.61 | 575167 | 0.0962058 | 5/8/19 14:41 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8378267 | 6.70217E+12 | 0.0426523 | 1.2772942 | 2.8378267 |
| 592 | 5912.28 | 575167 | 0.0962981 | 5/8/19 14:46 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8405508 | 6.70217E+12 | 0.0296116 | 5.986686 | 5.986686 |
| 593 | 5908.65 | 575170 | 0.095031 | 5/8/19 14:51 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.8031727 | 6.70217E+12 | 0.2670565 | 7.997452 | 7.997452 |
| 594 | 5900.02 | 575170 | 0.0948922 | 5/8/19 14:56 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.7990785 | 6.70217E+12 | 0.0299601 | 0.8972051 | 2.7990785 |
| 595 | 5884.23 | 575171 | 0.0950701 | 5/8/19 15:01 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8043263 | 6.70217E+12 | 0.0297971 | 0.8923238 | 2.8043263 |
| 596 | 5890.02 | 575171 | 0.0951636 | 5/8/19 15:06 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8070857 | 6.70217E+12 | 0.0254303 | 0.7615527 | 2.8070857 |
| 597 | 5890.65 | 575171 | 0.0951738 | 5/8/19 15:11 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8073859 | 6.70217E+12 | 0.0264722 | 0.7927541 | 2.8073859 |
| 598 | 5868.34 | 575171 | 0.0948133 | 5/8/19 15:16 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.7967533 | 6.70217E+12 | 0.0232906 | 0.6974758 | 2.7967533 |
| 599 | 5883.01 | 575172 | 0.0962041 | 5/8/19 15:21 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.837777 | 6.70217E+12 | 0.0222339 | 0.6655317 | 2.837777 |
| 600 | 5877.22 | 575172 | 0.0961094 | 5/8/19 15:26 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.8349841 | 6.70217E+12 | 0.021497 | 0.6437635 | 2.8349841 |
| 601 | 5882.35 | 575173 | 0.0955836 | 5/8/19 15:31 | 0.0170556 | 0.5107584 | 5.06566E+13 | 2.8194728 | 6.70217E+12 | 0.0233908 | 0.7004765 | 2.8194728 |
| 602 | 5895.23 | 575174 | 0.0960485 | 5/8/19 15:36 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8331879 | 6.70217E+12 | 0.0260191 | 0.7791853 | 2.8331879 |
| 603 | 5891.02 | 575174 | 0.0959799 | 5/8/19 15:41 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8311646 | 6.70217E+12 | 0.0204508 | 0.6124333 | 2.8311646 |
| 604 | 5895.3 | 575174 | 0.0960497 | 5/8/19 15:46 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8332215 | 6.70217E+12 | 0.0203869 | 0.6105197 | 2.8332215 |
| 605 | 5898.69 | 575174 | 0.0961049 | 5/8/19 15:51 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8348507 | 6.70217E+12 | 0.0210614 | 0.6307187 | 2.8348507 |
| 606 | 5898.34 | 575175 | 0.0970802 | 5/8/19 15:56 | 0.0170556 | 0.5107584 | 5.00112E+13 | 2.863621 | 6.70217E+12 | 0.0209194 | 0.6264663 | 2.863621 |
| 607 | 5900.14 | 575176 | 0.0971661 | 5/8/19 16:01 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8661537 | 6.70217E+12 | 0.0209977 | 0.6288111 | 2.8661537 |
| 608 | 5891.31 | 575176 | 0.0970207 | 5/8/19 16:06 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8618643 | 6.70217E+12 | 0.0203367 | 0.6090164 | 2.8618643 |
| 609 | 5893.65 | 575176 | 0.0970592 | 5/8/19 16:11 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.863001 | 6.70217E+12 | 0.0213506 | 0.6393793 | 2.863001 |
| 610 | 5892.53 | 575177 | 0.0969298 | 5/8/19 16:16 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8591849 | 6.70217E+12 | 0.0261533 | 0.7832042 | 2.8591849 |
| 611 | 5894.16 | 575177 | 0.0969567 | 5/8/19 16:21 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8599758 | 6.70217E+12 | 0.0258626 | 0.7744987 | 2.8599758 |
| 612 | 5895.84 | 575178 | 0.097646 | 5/8/19 16:26 | 0.0174326 | 0.5220483 | 4.97004E+13 | 2.88031 | 6.70217E+12 | 0.0215949 | 0.6466953 | 2.88031 |
| 613 | 5896.89 | 575179 | 0.0980892 | 5/8/19 16:31 | 0.0174326 | 0.5220483 | 4.94846E+13 | 2.8933819 | 6.70217E+12 | 0.0198411 | 0.5941748 | 2.8933819 |
| 614 | 5902.19 | 575180 | 0.0983841 | 5/8/19 16:36 | 0.0174326 | 0.5220483 | 4.93807E+13 | 2.9020809 | 6.70217E+12 | 0.0207134 | 0.6202973 | 2.9020809 |
| 615 | 5905.9 | 575181 | 0.097534 | 5/8/19 16:41 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8770052 | 6.70217E+12 | 0.0223016 | 0.6678566 | 2.8770052 |
| 616 | 5906.84 | 575181 | 0.0976495 | 5/8/19 16:46 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8774631 | 6.70217E+12 | 0.0254538 | 0.7622585 | 2.8774631 |
| 617 | 5904.42 | 575181 | 0.0975095 | 5/8/19 16:51 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8762842 | 6.70217E+12 | 0.025079 | 0.7510325 | 2.8762842 |
| 618 | 5903.02 | 575181 | 0.0974864 | 5/8/19 16:56 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8756022 | 6.70217E+12 | 0.0246071 | 0.7369006 | 2.8756022 |
| 619 | 5894.63 | 575182 | 0.0989154 | 5/8/19 17:01 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9177544 | 6.70217E+12 | 0.0226389 | 0.6779596 | 2.9177544 |
| 620 | 5898.06 | 575182 | 0.098973 | 5/8/19 17:06 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9194522 | 6.70217E+12 | 0.0256642 | 0.7685572 | 2.9194522 |
| 621 | 5891.22 | 575182 | 0.0988582 | 5/8/19 17:11 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9160665 | 6.70217E+12 | 0.0384273 | 1.1507695 | 2.9160665 |
| 622 | 5888.49 | 575182 | 0.0988124 | 5/8/19 17:16 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9147151 | 6.70217E+12 | 0.0364449 | 1.0914033 | 2.9147151 |
| 623 | 5895.57 | 575183 | 0.0996828 | 5/8/19 17:21 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9403898 | 6.70217E+12 | 0.0191003 | 0.5719903 | 2.9403898 |
| 624 | 5896.91 | 575183 | 0.0997054 | 5/8/19 17:26 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9410582 | 6.70217E+12 | 0.0230176 | 0.6893004 | 2.9410582 |
| 625 | 5918.72 | 575183 | 0.1000742 | 5/8/19 17:31 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9519358 | 6.70217E+12 | 0.0300289 | 0.0907055 | 2.9519358 |
| 626 | 5926.18 | 575183 | 0.1002003 | 5/8/19 17:36 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9556564 | 6.70217E+12 | 0.0439309 | 1.315584 | 2.9556564 |
| 627 | 5934.97 | 575183 | 0.100349 | 5/8/19 17:41 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9600404 | 6.70217E+12 | 0.0408583 | 1.2235699 | 2.9600404 |
| 628 | 5944.99 | 575185 | 0.100551 | 5/8/19 17:46 | 0.0174032 | 0.5211678 | 4.86669E+13 | 2.9659989 | 6.70217E+12 | 0.0170991 | 0.512061 | 2.9659989 |
| 629 | 5940.01 | 575185 | 0.1004667 | 5/8/19 17:51 | 0.0174032 | 0.5211678 | 4.86669E+13 | 2.9635144 | 6.70217E+12 | 0.0183967 | 0.5509198 | 2.9635144 |
| 630 | 5931.52 | 575186 | 0.1008871 | 5/8/19 17:56 | 0.0174032 | 0.5211678 | 4.83948E+13 | 2.9759139 | 6.70217E+12 | 0.0163528 | 0.4897119 | 2.9759139 |
| 631 | 5938.6 | 575188 | 0.0986457 | 5/8/19 18:01 | 0.0165475 | 0.4955425 | 4.95535E+13 | 2.9097985 | 6.70217E+12 | 0.0185884 | 0.5566606 | 2.9097985 |
| 632 | 5931.02 | 575189 | 0.0980181 | 5/8/19 18:06 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8912849 | 6.70217E+12 | 0.0173413 | 0.5193141 | 2.8912849 |
| 633 | 5928.19 | 575189 | 0.0979713 | 5/8/19 18:12 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8899053 | 6.70217E+12 | 0.0187899 | 0.5626949 | 2.8899053 |
| 634 | 5932.23 | 575189 | 0.0980381 | 5/8/19 18:17 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8918748 | 6.70217E+12 | 0.0180684 | 0.5410884 | 2.8918748 |
| 635 | 5931.78 | 575189 | 0.0980306 | 5/8/19 18:22 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8916554 | 6.70217E+12 | 0.0164812 | 0.493557 | 2.8916554 |
| 636 | 5964.15 | 575189 | 0.0985656 | 5/8/19 18:27 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.9074353 | 6.70217E+12 | 0.0180238 | 0.5397527 | 2.9074353 |
| 637 | 5899.89 | 575189 | 0.0975036 | 5/8/19 18:32 | 0.0165475 | 0.4955425 | 4.98071E+13 | 2.8761095 | 6.70217E+12 | 0.0168118 | 0.5034574 | 2.8761095 |
| 638 | 5931.45 | | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|------------|------------|-------------|-----------|-------------|------------|------------|-----------|
| 666 | 6054.77 | 575206 | 0.1045618 | 5/8/19 20:57 | 0.013261 | 0.3971227 | 4.76643E+13 | 3.084309 | 6.70217E+12 | 0.0122348 | 0.3663915 | 3.084309 |
| 667 | 6045.31 | 575206 | 0.1043985 | 5/8/19 21:02 | 0.0057558 | 0.172367 | 4.76643E+13 | 3.0794901 | 6.70217E+12 | 0.0113115 | 0.3387417 | 3.0794901 |
| 668 | 6042.99 | 575207 | 0.1043195 | 5/8/19 21:07 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0771614 | 6.70217E+12 | 0.0064092 | 0.1919342 | 3.0771614 |
| 669 | 6038.47 | 575207 | 0.1042415 | 5/8/19 21:12 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0748598 | 6.70217E+12 | 0.0050076 | 0.1499609 | 3.0748598 |
| 670 | 6046.62 | 575207 | 0.1043822 | 5/8/19 21:17 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0790099 | 6.70217E+12 | -0.0026668 | -0.0798618 | 3.0790099 |
| 671 | 6044.8 | 575207 | 0.1043508 | 5/8/19 21:22 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0780831 | 6.70217E+12 | 0.0105849 | 0.3169825 | 3.0780831 |
| 672 | 6048.33 | 575207 | 0.1044117 | 5/8/19 21:27 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0798806 | 6.70217E+12 | 0.0086089 | 0.2578079 | 3.0798806 |
| 673 | 6052.87 | 575208 | 0.1057954 | 5/8/19 21:32 | 0.0057558 | 0.172367 | 4.70937E+13 | 3.1206959 | 6.70217E+12 | 0.0018 | 0.053904 | 3.1206959 |
| 674 | 6056.61 | 575210 | 0.1055202 | 5/8/19 21:37 | 0.0057558 | 0.172367 | 4.72457E+13 | 3.1125773 | 6.70217E+12 | -0.0021614 | -0.0647267 | 3.1125773 |
| 675 | 6059.99 | 575212 | 0.0995054 | 5/8/19 21:42 | 0.0057558 | 0.172367 | 5.01295E+13 | 2.9351584 | 6.70217E+12 | -0.0034416 | -0.1030644 | 2.9351584 |
| 676 | 6049.69 | 575213 | 0.0988159 | 5/8/19 21:47 | 0.0057558 | 0.172367 | 5.03935E+13 | 2.9148188 | 6.70217E+12 | -0.0015146 | -0.0453572 | 2.9148188 |
| 677 | 6056.42 | 575214 | 0.0996142 | 5/8/19 21:52 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9383674 | 6.70217E+12 | -0.0023178 | -0.0694104 | 2.9383674 |
| 678 | 6045.27 | 575214 | 0.0994308 | 5/8/19 21:57 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9329578 | 6.70217E+12 | 0.0029429 | 0.08813 | 2.9329578 |
| 679 | 6041.19 | 575214 | 0.0993637 | 5/8/19 22:02 | -0.0039885 | -0.1194423 | 5.00453E+13 | 2.9309783 | 6.70217E+12 | 0.0028846 | 0.0863842 | 2.9309783 |
| 680 | 6033.23 | 575215 | 0.0986577 | 5/8/19 22:07 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9101535 | 6.70217E+12 | -0.0021717 | -0.0650352 | 2.9101535 |
| 681 | 6034.99 | 575215 | 0.0986865 | 5/8/19 22:12 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9110025 | 6.70217E+12 | 0.0094236 | 0.2822054 | 2.9110025 |
| 682 | 6042.83 | 575215 | 0.0988147 | 5/8/19 22:17 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9147841 | 6.70217E+12 | -0.0117128 | -0.3507593 | 2.9147841 |
| 683 | 6033.48 | 575216 | 0.0981874 | 5/8/19 22:22 | -0.0039885 | -0.1194423 | 5.05802E+13 | 2.8962791 | 6.70217E+12 | -0.0071632 | -0.214514 | 2.8962791 |
| 684 | 6028.01 | 575217 | 0.0985494 | 5/8/19 22:27 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9069577 | 6.70217E+12 | -0.0043047 | -0.1289114 | 2.9069577 |
| 685 | 6027.43 | 575217 | 0.0985399 | 5/8/19 22:32 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.906678 | 6.70217E+12 | -0.0026014 | -0.0779033 | 2.906678 |
| 686 | 6029.94 | 575217 | 0.098581 | 5/8/19 22:37 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9078884 | 6.70217E+12 | -0.0017683 | -0.0529547 | 2.9078884 |
| 687 | 6039.16 | 575219 | 0.0983331 | 5/8/19 22:42 | -0.0039885 | -0.1194423 | 5.05528E+13 | 2.9005763 | 6.70217E+12 | -0.0018002 | -0.05391 | 2.9005763 |
| 688 | 6039.06 | 575221 | 0.0975716 | 5/8/19 22:47 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.8781157 | 6.70217E+12 | 0.0035525 | 0.1063855 | 2.8781157 |
| 689 | 6035.97 | 575221 | 0.0975217 | 5/8/19 22:52 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.876643 | 6.70217E+12 | -0.0028608 | -0.0856714 | 2.876643 |
| 690 | 6041.91 | 575222 | 0.0971742 | 5/8/19 22:57 | -0.0039885 | -0.1194423 | 5.1179E+13 | 2.8663937 | 6.70217E+12 | -0.0044334 | -0.1327656 | 2.8663937 |
| 691 | 6066.64 | 575224 | 0.1014592 | 5/9/19 0:02 | -0.0060127 | -0.1800603 | 4.92181E+13 | 2.9927906 | 6.70217E+12 | -0.0145142 | -0.4346519 | 2.9927906 |
| 692 | 6072.36 | 575225 | 0.1021048 | 5/9/19 0:07 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0118316 | 6.70217E+12 | -0.0130235 | -0.3900104 | 3.0118316 |
| 693 | 6068.07 | 575225 | 0.1020326 | 5/9/19 0:12 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0097038 | 6.70217E+12 | -0.0286682 | -0.858517 | 3.0097038 |
| 694 | 6076.08 | 575225 | 0.1021673 | 5/9/19 0:17 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0136767 | 6.70217E+12 | -0.0231556 | -0.693433 | 3.0136767 |
| 695 | 6077.05 | 575225 | 0.1021836 | 5/9/19 0:22 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0141578 | 6.70217E+12 | -0.0015472 | -0.0463335 | 3.0141578 |
| 696 | 6056.56 | 575225 | 0.1018391 | 5/9/19 0:27 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.003995 | 6.70217E+12 | -0.0012057 | -0.0361067 | 3.003995 |
| 697 | 6053.34 | 575225 | 0.1017849 | 5/9/19 0:37 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0023979 | 6.70217E+12 | -0.0181456 | -0.5434002 | 3.0023979 |
| 698 | 6047.02 | 575227 | 0.1035951 | 5/9/19 0:42 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0557938 | 6.70217E+12 | -0.0191353 | -0.5730385 | 3.0557938 |
| 699 | 6061.52 | 575227 | 0.1038435 | 5/9/19 0:47 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0631212 | 6.70217E+12 | -0.0107209 | -0.3210552 | 3.0631212 |
| 700 | 6050.01 | 575229 | 0.103384 | 5/9/19 0:52 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0495651 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0495651 |
| 701 | 6044.15 | 575229 | 0.1032838 | 5/9/19 0:57 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0466114 | 6.70217E+12 | -0.0040798 | -0.1221764 | 3.0466114 |
| 702 | 6044.76 | 575229 | 0.1032943 | 5/9/19 1:02 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0469188 | 6.70217E+12 | -0.0033111 | -0.0991564 | 3.0469188 |
| 703 | 6039.56 | 575229 | 0.1032054 | 5/9/19 1:07 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0442977 | 6.70217E+12 | -0.0031204 | -0.0934456 | 3.0442977 |
| 704 | 6042.9 | 575231 | 0.1030119 | 5/9/19 1:12 | -0.0084514 | -0.2530913 | 4.82866E+13 | 3.0385906 | 6.70217E+12 | -0.0012951 | -0.0387839 | 3.0385906 |
| 705 | 6042.77 | 575232 | 0.1030817 | 5/9/19 1:17 | -0.0084514 | -0.2530913 | 4.82528E+13 | 3.0406489 | 6.70217E+12 | -0.0005672 | -0.0169857 | 3.0406489 |
| 706 | 6053.94 | 575233 | 0.1033545 | 5/9/19 1:22 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0486951 | 6.70217E+12 | -0.0121807 | -0.3647714 | 3.0486951 |
| 707 | 6056.93 | 575233 | 0.1034055 | 5/9/19 1:27 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0502008 | 6.70217E+12 | -0.0149888 | -0.4488646 | 3.0502008 |
| 708 | 6055.69 | 575233 | 0.1033843 | 5/9/19 1:32 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0495763 | 6.70217E+12 | -0.0147726 | -0.4423901 | 3.0495763 |
| 709 | 6058.16 | 575233 | 0.1034265 | 5/9/19 1:37 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0508202 | 6.70217E+12 | -0.0157309 | -0.471088 | 3.0508202 |
| 710 | 6059.3 | 575234 | 0.1038084 | 5/9/19 1:42 | -0.0084514 | -0.2530913 | 4.80461E+13 | 3.0620845 | 6.70217E+12 | -0.0227758 | -0.6820593 | 3.0620845 |
| 711 | 6061.34 | 575235 | 0.1031342 | 5/9/19 1:47 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0421965 | 6.70217E+12 | -0.0265233 | -0.7942844 | 3.0421965 |
| 712 | 6073.89 | 575235 | 0.1033477 | 5/9/19 1:52 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0484953 | 6.70217E+12 | -0.0258125 | -0.7729983 | 3.0484953 |
| 713 | 6070.6 | 575236 | 0.1036534 | 5/9/19 1:57 | -0.0084514 | -0.2530913 | 4.82077E+13 | 3.0575115 | 6.70217E+12 | -0.0270166 | -0.8090571 | 3.0575115 |
| 714 | 6070.34 | 575237 | 0.1039744 | 5/9/19 2:02 | -0.009959 | -0.2982389 | 4.80568E+13 | 3.0669809 | 6.70217E+12 | -0.0241909 | -0.7244368 | 3.0669809 |
| 715 | 6070.64 | 575238 | 0.1033994 | 5/9/19 2:07 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0500217 | 6.70217E+12 | -0.0192845 | -0.5775065 | 3.0500217 |
| 716 | 6066.1 | 575238 | 0.1033221 | 5/9/19 2:12 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0477407 | 6.70217E+12 | -0.0253576 | -0.7593756 | 3.0477407 |
| 717 | 6051.34 | 575238 | 0.1030707 | 5/9/19 2:17 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.040325 | 6.70217E+12 | -0.0277084 | -0.8297742 | 3.040325 |
| 718 | 6061.78 | 575239 | 0.1040791 | 5/9/19 2:22 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.0700698 | 6.70217E+12 | -0.0259793 | -0.7779934 | 3.0700698 |
| 719 | 6063.51 | 575239 | 0.1041088 | 5/9/19 2:27 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.070946 | 6.70217E+12 | -0.0268247 | -0.8033103 | 3.070946 |
| 720 | 6069.07 | 575240 | 0.1042563 | 5/9/19 2:32 | -0.009959 | -0.2982389 | 4.79168E+13 | 3.0752977 | 6.70217E+12 | -0.0240329 | -0.7197052 | 3.0752977 |
| 721 | 6065.45 | 575242 | 0.1026794 | 5/9/19 2:37 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0287832 | 6.70217E+12 | -0.0250565 | -0.7503587 | 3.0287832 |
| 722 | 6056.78 | 575242 | 0.1025327 | 5/9/19 2:43 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0244539 | 6.70217E+12 | -0.0183811 | -0.5504527 | 3.0244539 |
| 723 | 6054.89 | 575242 | 0.1025007 | 5/9/19 2:48 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0235101 | 6.70217E+12 | -0.0211004 | -0.6318866 | 3.0235101 |
| 724 | 6052.82 | 575243 | 0.1032503 | 5/9/19 2:53 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.0456209 | 6.70217E+12 | -0.0280966 | -0.8413995 | 3.0456209 |
| 725 | 6054.43 | 575243 | 0.1032777 | 5/9/19 2:58 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.046431 | 6.70217E+12 | -0.0255341 | -0.7466612 | 3.046431 |
| 726 | 6054.32 | 575244 | 0.1033884 | 5/9/19 3:03 | -0.0077595 | -0.2323712 | 4.82017E+13 | 3.049695 | 6.70217E+12 | -0.0035264 | -0.1056039 | 3.049695 |
| 727 | 6068.65 | 575246 | 0.1006368 | 5/9/19 3:08 | -0.0077595 | -0.2323712 | 4.96368E+13 | 2.9685297 | 6.70217E+12 | -0.0237767 | -0.7120329 | 2.9685297 |
| 728 | 6068.33 | 575249 | 0.0992317 | 5/9/19 3:13 | -0.0077595 | -0.2323712 | 5.0337E+13 | 2.9270841 | 6.70217E+12 | -0.0227655 | -0.6817508 | 2.9270841 |
| 729 | 6063.73 | 575250 | 0.0992085 | 5/9/19 3:18 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9263997 | 6.70217E+12 | -0.0241747 | -0.7239517 | 2.9263997 |
| 730 | 6046.71 | 575250 | 0.09893 | 5/9/19 3:23 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9181857 | 6.70217E+12 | -0.0246606 | -0.7385028 | 2.9181857 |
| 731 | 6046.74 | 575251 | 0.099455 | 5/9/19 3:28 | -0.0077595 | -0.2323712 | 5.00453E+13 | 2.933671 | 6.70217E+12 | -0.028565 | -0.684476 | 2.933671 |
| 732 | 6058.26 | 575252 | 0.0992865 | 5/9/19 3:33 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9286995 | 6.70217E+12 | -0.0237663 | -0.7117125 | 2.9286995 |
| 733 | 6064.08 | 575252 | 0.0993819 | 5/9/19 3:38 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|------------|-------------|-----------|-------------|------------|------------|-----------|
| 761 | 6044.98 | 575261 | 0.1039808 | 5/9/19 5:58 | -0.001004 | -0.0300665 | 4.78531E+13 | 3.0671699 | 6.70217E+12 | -0.0198792 | -0.5953158 | 3.0671699 |
| 762 | 6040.28 | 575262 | 0.1043375 | 5/9/19 6:03 | 0.0099891 | 0.2991402 | 4.76524E+13 | 3.077692 | 6.70217E+12 | -0.0173633 | -0.519973 | 3.077692 |
| 763 | 6034.01 | 575263 | 0.1041918 | 5/9/19 6:08 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0733946 | 6.70217E+12 | -0.018275 | -0.5472753 | 3.0733946 |
| 764 | 6034.26 | 575263 | 0.1041961 | 5/9/19 6:13 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0735219 | 6.70217E+12 | -0.0079803 | -0.2389834 | 3.0735219 |
| 765 | 6037.47 | 575263 | 0.1042516 | 5/9/19 6:18 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0751569 | 6.70217E+12 | -0.0028126 | -0.084228 | 3.0751569 |
| 766 | 6035.61 | 575264 | 0.1036859 | 5/9/19 6:23 | 0.0099891 | 0.2991402 | 4.79148E+13 | 3.0584702 | 6.70217E+12 | -0.0009188 | -0.027515 | 3.0584702 |
| 767 | 6032.26 | 575264 | 0.1036283 | 5/9/19 6:28 | 0.0099891 | 0.2991402 | 4.79148E+13 | 3.0567726 | 6.70217E+12 | -0.0017763 | -0.0531943 | 3.0567726 |
| 768 | 6035.08 | 575266 | 0.1012996 | 5/9/19 6:33 | 0.0099891 | 0.2991402 | 4.90392E+13 | 2.988081 | 6.70217E+12 | -0.0029613 | -0.0886811 | 2.988081 |
| 769 | 6038.27 | 575266 | 0.1013531 | 5/9/19 6:38 | 0.0099891 | 0.2991402 | 4.90392E+13 | 2.9896604 | 6.70217E+12 | -0.0017698 | -0.0529996 | 2.9896604 |
| 770 | 6038.35 | 575267 | 0.1004336 | 5/9/19 6:43 | 0.0099891 | 0.2991402 | 4.94889E+13 | 2.9625364 | 6.70217E+12 | -0.0040978 | -0.1227155 | 2.9625364 |
| 771 | 6041.06 | 575267 | 0.1004787 | 5/9/19 6:48 | 0.0099891 | 0.2991402 | 4.94889E+13 | 2.963866 | 6.70217E+12 | -0.0041121 | -0.1231437 | 2.963866 |
| 772 | 6032.6 | 575269 | 0.1003466 | 5/9/19 6:53 | 0.0099891 | 0.2991402 | 4.94846E+13 | 2.9599697 | 6.70217E+12 | -0.0017941 | -0.0537273 | 2.9599697 |
| 773 | 6038.62 | 575269 | 0.1004467 | 5/9/19 6:58 | 0.0099891 | 0.2991402 | 4.94846E+13 | 2.9629235 | 6.70217E+12 | -0.0169009 | -0.5061256 | 2.9629235 |
| 774 | 6023.18 | 575269 | 0.1001899 | 5/9/19 7:03 | 0.015734 | 0.4711809 | 4.94846E+13 | 2.9553477 | 6.70217E+12 | -0.0127165 | -0.3808168 | 2.9553477 |
| 775 | 6018.06 | 575270 | 0.100393 | 5/9/19 7:08 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9613379 | 6.70217E+12 | -0.0057831 | -0.1731846 | 2.9613379 |
| 776 | 6028.56 | 575270 | 0.1005681 | 5/9/19 7:13 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9665047 | 6.70217E+12 | -0.0011814 | -0.035379 | 2.9665047 |
| 777 | 6023.05 | 575271 | 0.1000255 | 5/9/19 7:18 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9505 | 6.70217E+12 | -0.0018878 | -0.0565333 | 2.9505 |
| 778 | 6002.6 | 575271 | 0.0996859 | 5/9/19 7:23 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9404822 | 6.70217E+12 | -0.0019315 | -0.057842 | 2.9404822 |
| 779 | 6004.55 | 575271 | 0.0997183 | 5/9/19 7:28 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9414374 | 6.70217E+12 | -0.0032781 | -0.0981682 | 2.9414374 |
| 780 | 6023.65 | 575271 | 0.1000355 | 5/9/19 7:33 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9507939 | 6.70217E+12 | -0.0044118 | -0.1321187 | 2.9507939 |
| 781 | 6022.52 | 575272 | 0.1006869 | 5/9/19 7:38 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9700094 | 6.70217E+12 | -0.0183056 | -0.5481917 | 2.9700094 |
| 782 | 6016.76 | 575272 | 0.1005906 | 5/9/19 7:43 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9671688 | 6.70217E+12 | -0.004465 | -0.1337119 | 2.9671688 |
| 783 | 6007.87 | 575272 | 0.100442 | 5/9/19 7:48 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9627847 | 6.70217E+12 | -0.0011594 | -0.0347202 | 2.9627847 |
| 784 | 5998.51 | 575272 | 0.1002855 | 5/9/19 7:53 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9581688 | 6.70217E+12 | -0.0019525 | -0.0584709 | 2.9581688 |
| 785 | 6004.67 | 575273 | 0.101848 | 5/9/19 7:58 | 0.015734 | 0.4711809 | 4.85294E+13 | 3.0042572 | 6.70217E+12 | -0.016446 | -0.4925029 | 3.0042572 |
| 786 | 5986.82 | 575273 | 0.1015452 | 5/9/19 8:03 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9953265 | 6.70217E+12 | -0.0226577 | -0.6785226 | 2.9953265 |
| 787 | 5966.01 | 575273 | 0.1011922 | 5/9/19 8:08 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9849149 | 6.70217E+12 | -0.0040549 | -0.1214307 | 2.9849149 |
| 788 | 5975.72 | 575273 | 0.1013569 | 5/9/19 8:13 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.989773 | 6.70217E+12 | -0.0088876 | 0.266154 | 2.989773 |
| 789 | 5974.19 | 575273 | 0.101331 | 5/9/19 8:18 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9890075 | 6.70217E+12 | 0.0059397 | 0.1778742 | 2.9890075 |
| 790 | 5989.16 | 575275 | 0.1021458 | 5/9/19 8:23 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130416 | 6.70217E+12 | 0.005809 | 0.1739602 | 3.0130416 |
| 791 | 5989.1 | 575275 | 0.1021448 | 5/9/19 8:28 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130114 | 6.70217E+12 | 0.0001868 | 0.005594 | 3.0130114 |
| 792 | 5990.38 | 575275 | 0.1021666 | 5/9/19 8:33 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0136553 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0136553 |
| 793 | 5999.35 | 575275 | 0.1023196 | 5/9/19 8:38 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.018168 | 6.70217E+12 | -0.0026113 | -0.0781997 | 3.018168 |
| 794 | 6009.99 | 575276 | 0.1040749 | 5/9/19 8:43 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0699468 | 6.70217E+12 | 0.0003791 | 0.0113528 | 3.0699468 |
| 795 | 6015.23 | 575276 | 0.1041657 | 5/9/19 8:48 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0726234 | 6.70217E+12 | 0.0045541 | 0.1363801 | 3.0726234 |
| 796 | 6006.59 | 575276 | 0.1040161 | 5/9/19 8:53 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0682101 | 6.70217E+12 | 0.0020439 | 0.061208 | 3.0682101 |
| 797 | 6012.06 | 575276 | 0.1041108 | 5/9/19 8:58 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0710042 | 6.70217E+12 | 0.0057903 | 0.1734002 | 3.0710042 |
| 798 | 5997.24 | 575276 | 0.1038541 | 5/9/19 9:03 | 0.021087 | 0.6314854 | 4.75331E+13 | 3.063434 | 6.70217E+12 | 0.0154384 | 0.4615919 | 3.063434 |
| 799 | 6009.31 | 575277 | 0.1048522 | 5/9/19 9:08 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0928732 | 6.70217E+12 | 0.0077881 | 0.2360097 | 3.0928732 |
| 800 | 6014.99 | 575277 | 0.1049513 | 5/9/19 9:13 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0957966 | 6.70217E+12 | 0.0015859 | 0.0474924 | 3.0957966 |
| 801 | 6015.14 | 575277 | 0.1049539 | 5/9/19 9:18 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0958738 | 6.70217E+12 | 0.0110437 | 0.330722 | 3.0958738 |
| 802 | 6010.98 | 575277 | 0.1048813 | 5/9/19 9:23 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0937327 | 6.70217E+12 | 0.0082541 | 0.2471828 | 3.0937327 |
| 803 | 6015.8 | 575279 | 0.1061867 | 5/9/19 9:28 | 0.021087 | 0.6314854 | 4.66328E+13 | 3.13224 | 6.70217E+12 | 0.0098213 | 0.2941152 | 3.13224 |
| 804 | 6008.98 | 575281 | 0.1036694 | 5/9/19 9:33 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0579847 | 6.70217E+12 | 0.0137284 | 0.4111198 | 3.0579847 |
| 805 | 6005.02 | 575281 | 0.1036011 | 5/9/19 9:38 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0559695 | 6.70217E+12 | 0.0148862 | 0.4457921 | 3.0559695 |
| 806 | 5992.86 | 575281 | 0.1033913 | 5/9/19 9:43 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0497812 | 6.70217E+12 | 0.019156 | 0.5736583 | 3.0497812 |
| 807 | 6001.7 | 575281 | 0.1035438 | 5/9/19 9:48 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0542799 | 6.70217E+12 | 0.0155476 | 0.4655988 | 3.0542799 |
| 808 | 5996.77 | 575281 | 0.1034587 | 5/9/19 9:53 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.051771 | 6.70217E+12 | 0.0127646 | 0.3822572 | 3.051771 |
| 809 | 5997.26 | 575281 | 0.1034672 | 5/9/19 9:58 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0520204 | 6.70217E+12 | 0.01036 | 0.3102475 | 3.0520204 |
| 810 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:03 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | -0.0001443 | -0.0043213 | 3.050967 |
| 811 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:08 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | 0.0134747 | 0.4035223 | 3.050967 |
| 812 | 5978.15 | 575281 | 0.1031375 | 5/9/19 10:13 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0422953 | 6.70217E+12 | 0.0153319 | 0.4591393 | 3.0422953 |
| 813 | 5989.44 | 575281 | 0.1033323 | 5/9/19 10:18 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0480408 | 6.70217E+12 | 0.016155 | 0.4837884 | 3.0480408 |
| 814 | 6001.74 | 575282 | 0.1070813 | 5/9/19 10:23 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.158626 | 6.70217E+12 | 0.0174376 | 0.522198 | 3.158626 |
| 815 | 6010.06 | 575282 | 0.1072297 | 5/9/19 10:28 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.1630047 | 6.70217E+12 | 0.0234385 | 0.7019049 | 3.1630047 |
| 816 | 6009.71 | 575283 | 0.1079065 | 5/9/19 10:33 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1829698 | 6.70217E+12 | 0.0203173 | 0.6084354 | 3.1829698 |
| 817 | 5995.73 | 575283 | 0.1076555 | 5/9/19 10:38 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1755655 | 6.70217E+12 | 0.019624 | 0.5876734 | 3.1755655 |
| 818 | 6000.73 | 575284 | 0.1065399 | 5/9/19 10:43 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.142657 | 6.70217E+12 | 0.0143614 | 0.4300761 | 3.142657 |
| 819 | 6007.62 | 575284 | 0.1066622 | 5/9/19 10:48 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1462654 | 6.70217E+12 | 0.0184275 | 0.5518422 | 3.1462654 |
| 820 | 6006.48 | 575284 | 0.106642 | 5/9/19 10:53 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1456683 | 6.70217E+12 | 0.0226632 | 0.6786873 | 3.1456683 |
| 821 | 5999.23 | 575284 | 0.1065133 | 5/9/19 10:58 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1418714 | 6.70217E+12 | 0.2007318 | 6.0112483 | 6.0112483 |
| 822 | 6004.02 | 575284 | 0.1065983 | 5/9/19 11:03 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.14438 | 6.70217E+12 | 0.0307427 | 0.9206414 | 3.14438 |
| 823 | 6000.99 | 575284 | 0.1065445 | 5/9/19 11:08 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1427931 | 6.70217E+12 | 0.0293874 | 0.8800547 | 3.1427931 |
| 824 | 6003.38 | 575284 | 0.1065869 | 5/9/19 11:13 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1440448 | 6.70217E+12 | 0.0349274 | 1.0459592 | 3.1440448 |
| 825 | 6014.88 | 575284 | 0.1067911 | 5/9/19 11:18 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1500675 | 6.70217E+12 | 0.0260766 | 0.7809072 | 3.1500675 |
| 826 | 6026.81 | 575284 | 0.1070029 | 5/9/19 11:24 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1563154 | 6.70217E+12 | 0.0118225 | 0.3540445 | 3.1563154 |

Who's Who

From: Austin Storms [austin@bearbox.io]
on behalf of Austin Storms [austin@bearbox.io] (austin@bearbox.io)
Sent: 8/10/2019 5:08:48 PM
To: Rajee Patel [Rajee@fenwick.com]; Michael Sacksteder [Msacksteder@fenwick.com]
Subject: Fwd: BearBox 2.0 product details and supporting documentation
Attachments: BearBox Product Details Summary v1.pdf; Information Open Sheet.pdf; User Manual; License; User Sheet.pdf; exceland_madeing_05092019.xls



Austin M. Starnes
2411 9th Street, N.E.
Atlanta, Georgia 30316

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----- Forwarded message -----

From: Austin Stoenius <austini@bearbox.io>
Date: Thu, May 9, 2019 at 11:32 AM
Subject: BearBox 20 product details and supporting documentation
To: "Michael" <michael@silangram.com>

Hey Michael

See attached for the 20' Reactix product details and some supporting docs. I've also attached some recent modeling data from one of the Exelon wind farms (based on publicly available marketplace data) - I can provide for any pricing needs you guys might be interested in reviewing.

Let me know if you have any questions!

July 4, 2007

-

August M. Storms
Beard & Co., LLC
611 O Keefe Avenue
New Orleans, LA 70115
austm@beardbox.io

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Trial Exhibit
TX906

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BB10000005

Appx13371

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BearBox

Product details: BearBox V205 (Bitmain S9, Dragonmint T1, or similar)

Physical Dimensions:

- External: 10' L x 8' W x 8'6" H
- Internal: 10' L x 7'8" W x 7'5" H
- Door Opening: 7'8" W x 7'7" H
- Weight: 2,800 lbs. – installed equipment

Electrical System:

- 3-Phase, 4-Wire 480Y/240V
- Remote dual-panel control (DLC) (14,300W total)
- All network infrastructure on UPS/battery backup
- ~370kW max load

Physical Rack System:

- Custom laser-cut aluminum frame with stainless-steel decking
- 800 standard U-rings

Cooling System:

- Graywater air-cooled
- (3) 10,000 CFM direct-drive, single-phase exhaust fans (see attached)
- Temperature controlled/software automation, remote on/off

Air Filtration System:

- Option 1: Re-matton Model U2 (see attached)
- Option 2: Can filter bank slide/park (see attached)
- Intake-side adjustable pitch weather shield

Total Designed Airflow:

- 372 min/hr @ 13.5 TH/s each
- 9.9 PF/s total

Network:

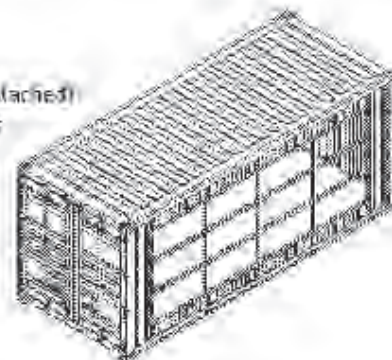
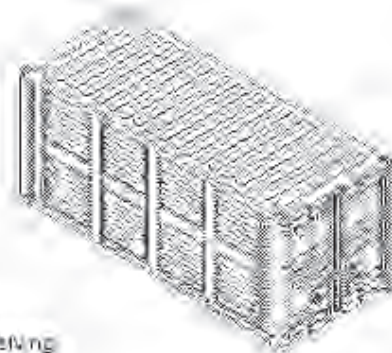
- Cat5e ethernet
- 18-port unmanaged 48V outlets (10G, TP, PoE, or fiber)
- On-site WAN or satellite (wired by third party)

Software Management:

- Local miner monitoring
- PostgreSQL database miner logging
- PPL history mapping (full information)
- Operational time-breakdown monitoring (renewable marketplace data)
- MMT Final Audit (costs, revenue, and maintenance required)

Summary:

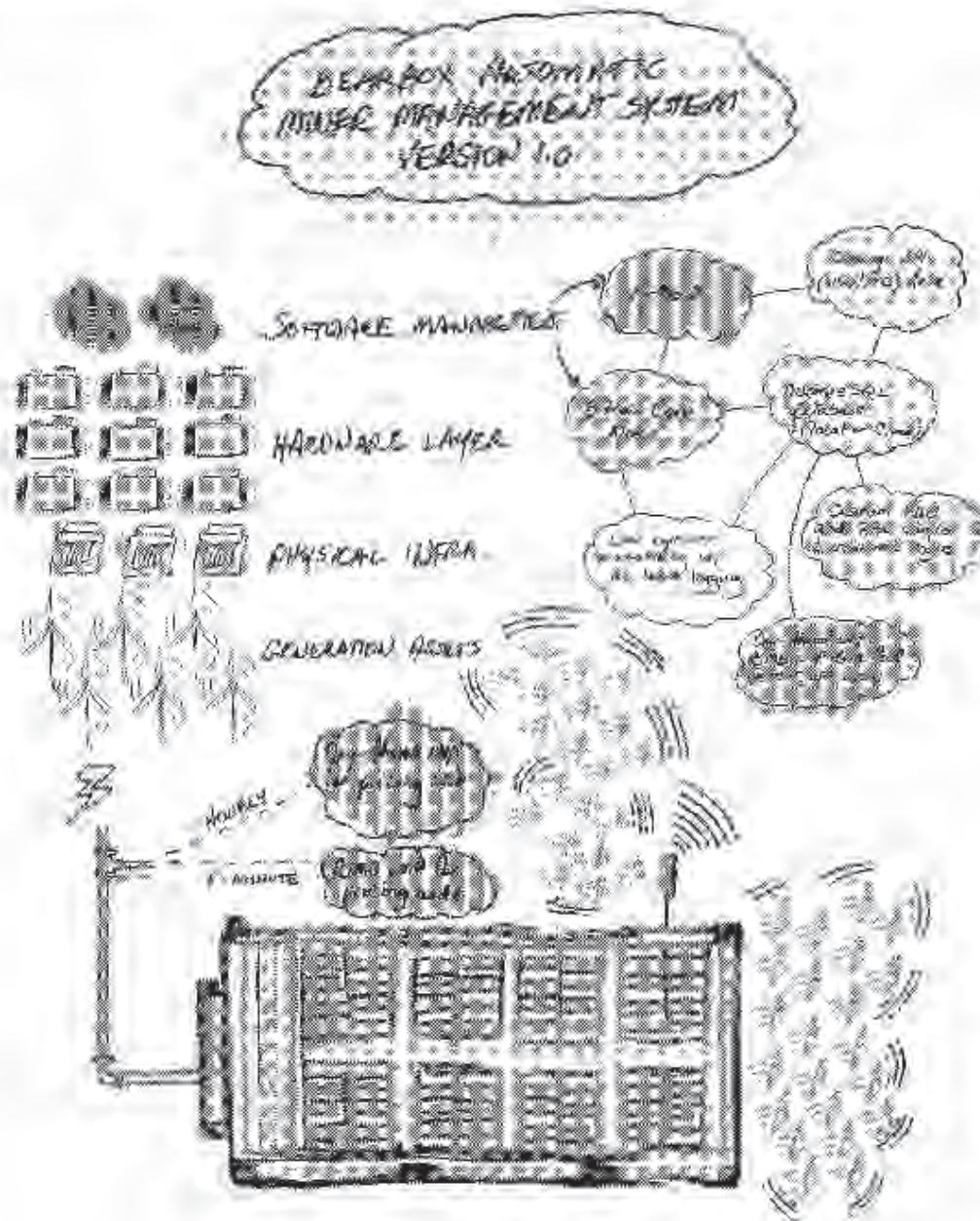
- BearBox V205: 13.9 PF/s @ ~370kW max load
- Does NOT include miners or external electrical infrastructure (transformer)
- Price: \$60,000 US (Est. 70k-80k after 9-12% markup)





BearBox

Product details: BearBox V205 (Bitmain SS), Dragonmint T1, or similar) – cont.





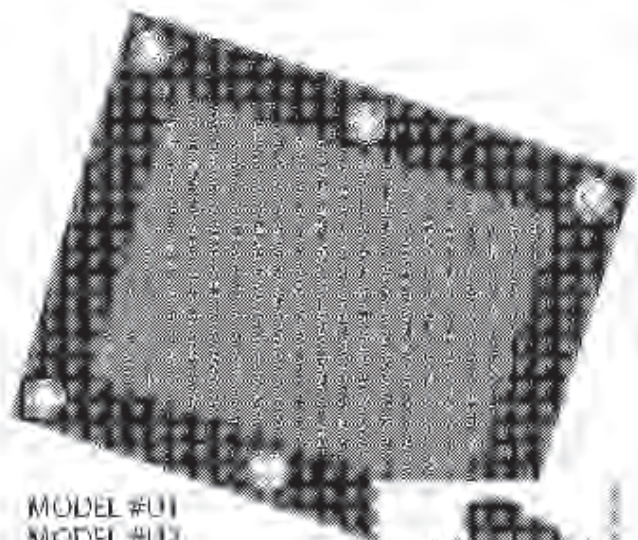
PreVent® Model U/BHA Flexible Frame Air Intake Filter

Acts as a primary pre-filtration defense to help prevent the damage and extensive maintenance that large volumes of dirt and debris can cause. Model U and BHA are custom designed and manufactured to fit any sized air intake.

Model U filter is constructed of washable three-dimensional electrostatic polypropylene media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model U1 contains one layer of media or Model U2 contains two layers of media depending on the application's environmental particle size.

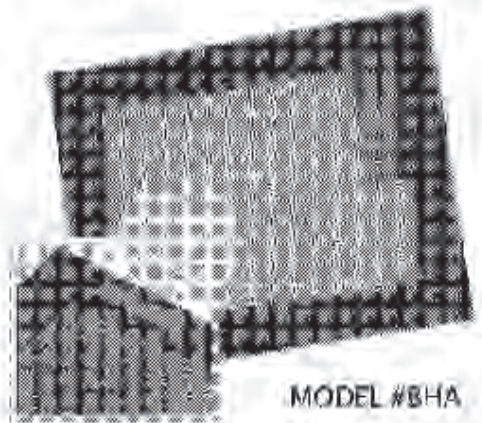
Model BHA filter is constructed of black PVC coated polyester high abrasion media and encased in a 1-1/4" sewn vinyl edge with single or double stitching. Model BHA contains one layer of media.

- Can be affixed to unit with hook/loop stripping, grommets, with mount clips, elastic bungee hooks or magnetic stripping
- Fits any equipment, specify size
- Sewn 2.5" vinyl edge (folded to 1-1/4") is standard for Flexible filters 0-2000 square inches
- Some welded edges also available as frame option
- UV protected black media
- U/L Classified as to Flammability Only
- 5 Year Warranty



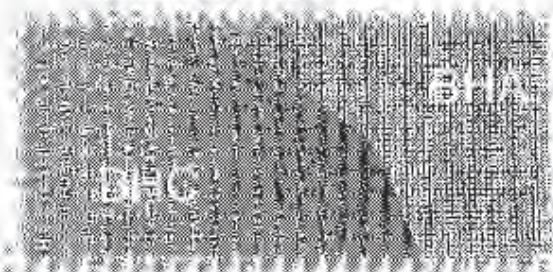
MODEL #U1
MODEL #U2

Plastic Mount
Clips available for
easy installation



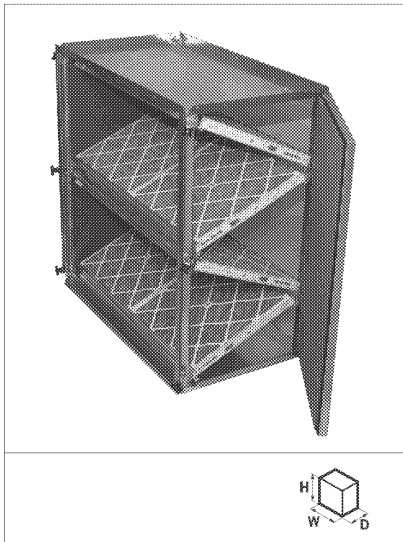
MODEL #BHA

Magnetic Stripping inside vinyl edge
available for easy installation



| | Model U1 | Model U2 | Model BHA |
|-----------------------------|-----------|-----------|-----------|
| Avg. Arrestance Efficiency | 42% | 72% | N/A |
| Dust Holding Capacity | 67 gm | 100 gm | N/A |
| Initial Air Flow Resistance | 0.02 w.g. | 0.05 w.g. | 0.02 w.g. |

www.permatron.com
1-800-882-8012

Filter Frames & Housings**Housings (ASHRAE)****V-Bank Glide/Pack®****Advantages**

- V-bank design reduces filter velocity and filter pressure drop by up to 60%, saving energy
- Increases life of filters up to four times

Typical applications: Single-stage V-bank filter housing for commercial, industrial, manufacturing or medical facilities.

Construction: 16-gauge galvanized steel with pre-drilled standing flanges, dual access doors, UV-resistant door knobs, door and filter sealing gasketing.

Filters: Any 2" deep filter.

Performance: Less than 1/2 of 1% leakage guaranteed. Rated airflow 500 fpm, may be operated to 625 fpm. Standard model operational to $\pm 6.0'$ w.g.

Additional data: Sizes available from 4 filters high to 6 filters wide. Housing is weatherproof for outside installation without modification. Includes pneumatic fitting for static pressure gauge.

See Literature 2421 for more details.

Dimensions and Airflow Capacity (cfm)

| Number of filters wide | Height (inches) | 1/2 Filter wide | 1 Filter wide | 1 1/2 Filters wide | 2 Filters wide | 2 1/2 Filters wide | 3 Filters wide | 3 1/2 Filters wide | 4 Filters wide | 4 1/2 Filters wide | 5 Filters wide | 5 1/2 Filters wide | 6 Filters wide | Housing depth (inches) |
|------------------------|-----------------|-----------------|---------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|--------------------|----------------|------------------------|
| 1/2 | 15.25 | - | 2,000 | - | 4,000 | - | 6,000 | - | 8,000 | - | 10,000 | - | 12,000 | 28.00 |
| 1 | 27.25 | 2,000 | 4,000 | 6,000 | 8,000 | 10,000 | 12,000 | 14,000 | 16,000 | 18,000 | 20,000 | 22,000 | 24,000 | |
| 1-1/2 | 39.50 | - | 6,000 | - | 12,000 | - | 18,000 | - | 24,000 | - | 30,000 | - | 36,000 | |
| 2 | 51.50 | 4,000 | 8,000 | 12,000 | 16,000 | 20,000 | 24,000 | 28,000 | 32,000 | 36,000 | 40,000 | 44,000 | 48,000 | |
| 2-1/2 | 63.75 | - | 10,000 | - | 20,000 | - | 30,000 | - | 40,000 | - | 50,000 | - | 60,000 | |
| 3 | 75.75 | 6,000 | 12,000 | 18,000 | 24,000 | 30,000 | 36,000 | 42,000 | 48,000 | 54,000 | 60,000 | 66,000 | 72,000 | |
| 3-1/2 | 88.00 | - | 14,000 | - | 28,000 | - | 42,000 | - | 54,000 | - | 70,000 | - | 84,000 | |
| 4 | 100.00 | 8,000 | 16,000 | 24,000 | 32,000 | 40,000 | 48,000 | 56,000 | 60,000 | 72,000 | 80,000 | 88,000 | 96,000 | |
| Width (inches) | | 12 | 24 | 36 | 48 | 60 | 72 | 84 | 96 | 108 | 120 | 132 | 144 | |

As part of our program for continuous improvement, Camfil reserves the right to change specifications without notice. 2018-12-07

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Washington NC, Concord Ontario
United States Tel: (866) 422-6345, Canada Tel: (800) 976-9382
www.camfil.com



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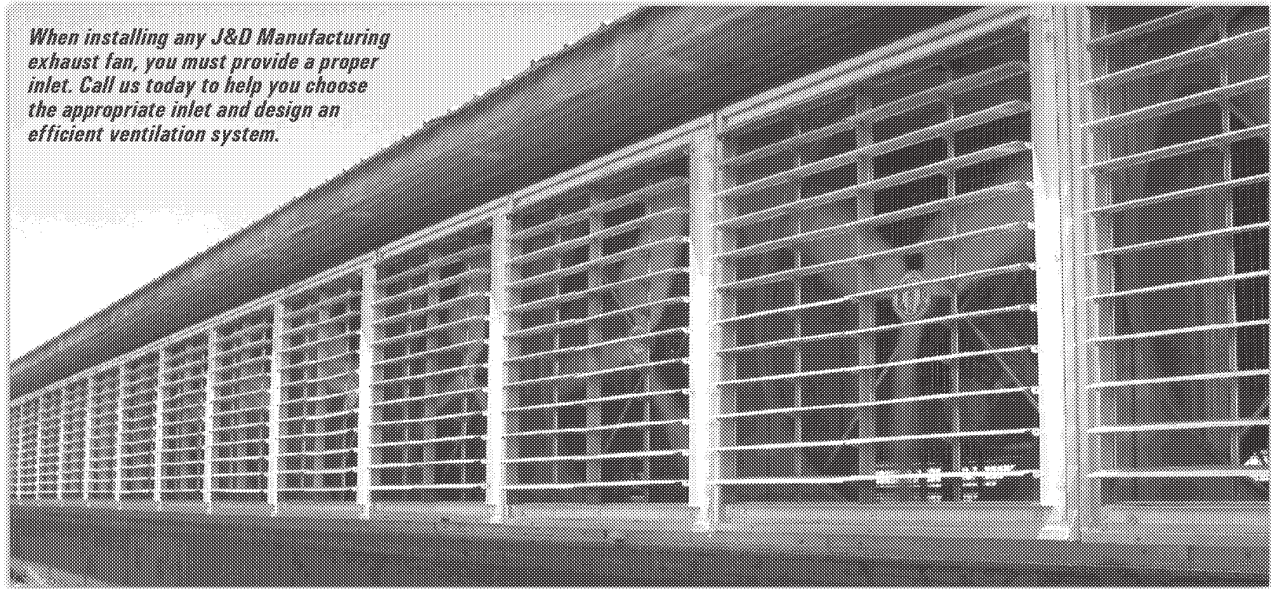
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Total System Solutions

Wall Master Exhaust Fan

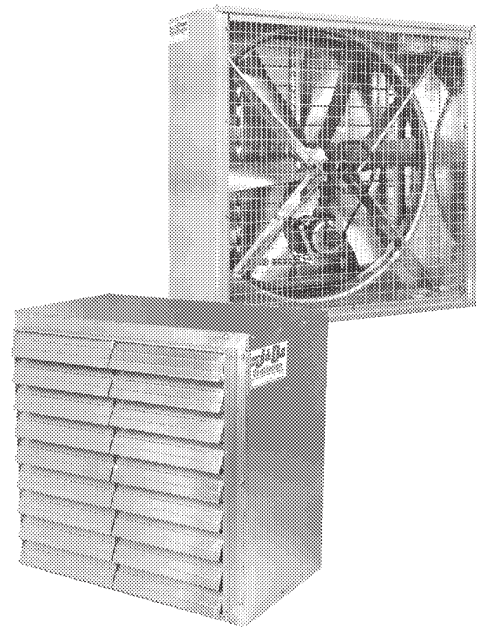
J&D Manufacturing's Wall Master exhaust fan offers high volume output and smooth, efficient operation. The heavy duty 18 gauge galvanized housing is strong, compact, and easy to install. J&D's Wall Master is a dependable fan suited for nearly any application including agricultural buildings, greenhouses, and warehouses.

When installing any J&D Manufacturing exhaust fan, you must provide a proper inlet. Call us today to help you choose the appropriate inlet and design an efficient ventilation system.



Features

- Available in 36" and 50" models
- Heavy duty 18 gauge galvanized housing
- Rugged X-frame for added stability on belt drive models
- Aluminum shutters with tie bar to prevent flapping and locking open
- 1" x 2" removable wire mesh guards are hot dip galvanized after welding
- Poly guard clips to reduce vibration for quiet performance
- 3, 4 or 6 blade galvanized propeller is balanced for smooth operation
- **Lifetime Warranty** on 3 blade cast aluminum props, available on select 50" models
- Bearings are eccentric locking, pre-lubricated, permanently sealed and rubber mounted for smooth operation and reduced blade fatigue, and are covered by a **Three Year Warranty**
- Spring belt tensioning system reduces bounce at startup on all belt driven models
- Optional weather hood available for protection from severe wind and weather
- Totally enclosed, maintenance-free, high-efficiency motors have completely sealed ball bearings, and are covered by a **Two Year Warranty**

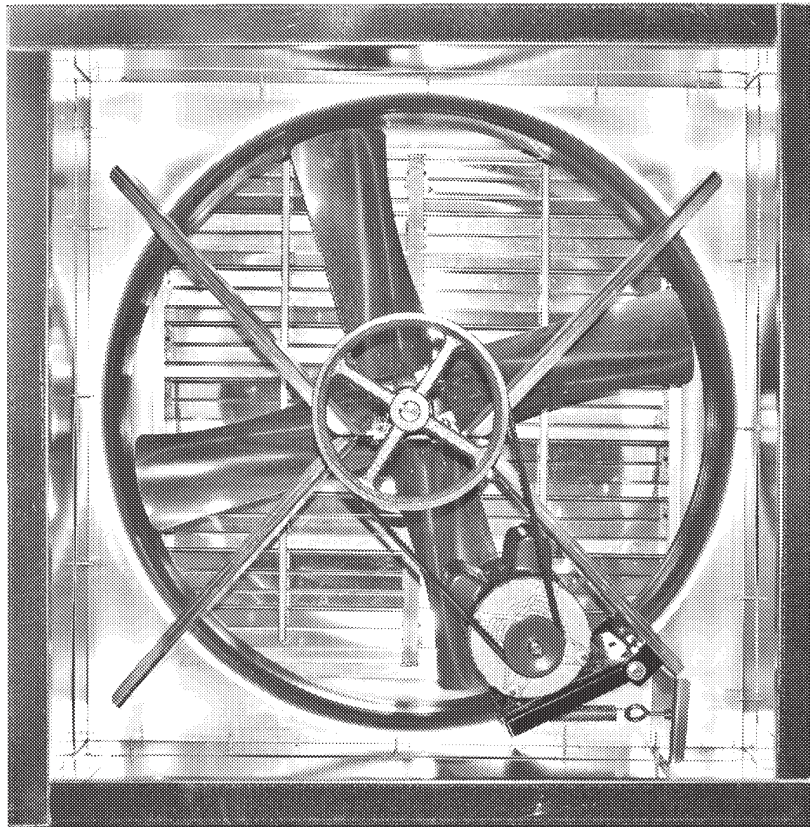


⚠WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

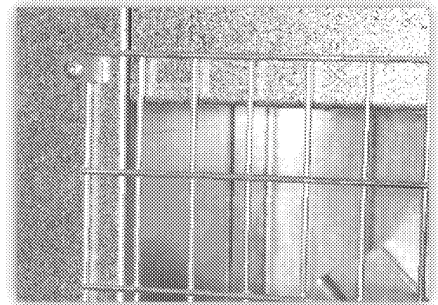
Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.



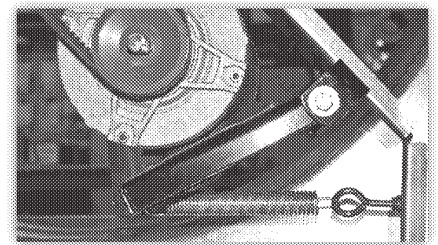
Wall Master Exhaust Fan



Heavy-duty X-frame - (Shown without rear guard for illustration purposes only)



Removable 12 Gauge 1" x 2" wire mesh guards are hot dip galvanized after welding. The guard is attached to the housing with poly guard clips to reduce noise and vibration.

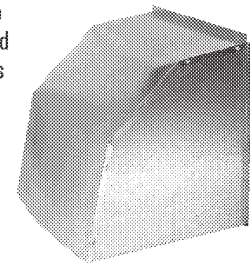


Belt drive models include a heavy duty spring belt tensioner to reduce bounce at startup and provide uniform loading to increase the life of the belt and maintain high efficiency.

| Part# | Size | Phs | Spd | @0.05" SP | | Drive | Prop |
|---|------|-----|-----|-----------|------|--------|-------|
| | | | | CFM | Watt | | |
| Single Phase | | | | | | | |
| VF36DM | 36" | 1 | 1 | 10,100 | 19.5 | Direct | 3-Glv |
| VF36GG | 36" | 1 | 1 | 9,000 | 18.1 | Belt | 4-Glv |
| VF36GG1 | 36" | 1 | 1 | 11,500 | 15.2 | Belt | 4-Glv |
| VF36GG2 | 36" | 1 | 2 | 11,400 | 15.3 | Belt | 4-Glv |
| VF50GG | 50" | 1 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF50GG6 | 50" | 1 | 1 | 21,300 | 20.0 | Belt | 6-Glv |
| VF50GGCA | 50" | 1 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| Three Phase | | | | | | | |
| VF36DM3CF | 36" | 3 | 1 | 10,000 | 19.6 | Direct | 3-Glv |
| VF36GG3 | 36" | 3 | 1 | 11,400 | 15.1 | Belt | 4-Glv |
| VF503GG | 50" | 3 | 1 | 21,000 | 18.9 | Belt | 3-Glv |
| VF503GG6 | 50" | 3 | 1 | 21,200 | 20.2 | Belt | 6-Glv |
| VF503GGCA | 50" | 3 | 1 | 20,900 | 18.8 | Belt | 3-CA |
| OSHA requires these fans to be mounted 7' above the floor | | | | | | | |

Optional Weather Hood

If Wall Master is mounted with the shutter side of the fan flush to an exterior wall a weather hood may be used on the exterior shutter side of the Wall Master to further protect the fan and shutter from severe winds and harsh weather.



| Fan Size | Rough Opening |
|----------|---------------------|
| 36" | 41"W x 41"H |
| 50" | 54 3/4"W x 54 3/4"H |

| Wall Master Fan Size | Weather Hood Part# |
|----------------------|--------------------|
| 36" | VFT140860 |
| 50" | VFT140861 |

⚠WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov/product.

Due to our continual effort to provide the best products available and adhere to market conditions; literature, products, prices and availability are subject to change without notice.

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 1 | 5698.24 | 574867 | 0.0883609 | 5/6/19 11:37 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6928794 | 6.70217E+12 | 0.0283682 | 0.8777121 | 2.6928794 |
| 2 | 5704.01 | 574867 | 0.0884504 | 5/6/19 11:42 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6956062 | 6.70217E+12 | 0.0256247 | 0.7928282 | 2.6956062 |
| 3 | 5721.16 | 574868 | 0.0878003 | 5/6/19 11:47 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6757929 | 6.70217E+12 | 0.0266466 | 0.8244458 | 2.6757929 |
| 4 | 5712.77 | 574868 | 0.0876715 | 5/6/19 11:52 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6718689 | 6.70217E+12 | 0.0294184 | 0.9102053 | 2.6718689 |
| 5 | 5702.98 | 574868 | 0.0875213 | 5/6/19 11:57 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6672901 | 6.70217E+12 | 0.02156316 | 0.66716417 | 6.6716417 |
| 6 | 5711.53 | 574868 | 0.0876525 | 5/6/19 12:02 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.671289 | 6.70217E+12 | 0.02457598 | 13.1730082 | 13.1730082 |
| 7 | 5719.99 | 574868 | 0.0877823 | 5/6/19 12:08 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.6752457 | 6.70217E+12 | 0.2947237 | 9.1187513 | 9.1187513 |
| 8 | 5711.93 | 574869 | 0.0870193 | 5/6/19 12:13 | 0.0319112 | 0.9873325 | 4.89954E+13 | 2.6519913 | 6.70217E+12 | 0.1560219 | 4.8273176 | 4.8273176 |
| 9 | 5708.01 | 574871 | 0.0868646 | 5/6/19 12:18 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6472769 | 6.70217E+12 | 0.0253548 | 0.7844775 | 2.6472769 |
| 10 | 5701.9 | 574871 | 0.0867716 | 5/6/19 12:23 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6444432 | 6.70217E+12 | 0.027036 | 0.8364938 | 2.6444432 |
| 11 | 5698.51 | 574871 | 0.0867 | 5/6/19 12:28 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.642871 | 6.70217E+12 | 0.026636 | 0.8241178 | 2.642871 |
| 12 | 5705.99 | 574875 | 0.0875317 | 5/6/19 13:07 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6676082 | 6.70217E+12 | 0.0297482 | 0.9204093 | 2.6676082 |
| 13 | 5706.72 | 574875 | 0.0875429 | 5/6/19 13:11 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6679495 | 6.70217E+12 | 0.0283545 | 0.8772882 | 2.6679495 |
| 14 | 5702.01 | 574875 | 0.0874707 | 5/6/19 13:16 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6657475 | 6.70217E+12 | 0.0263671 | 0.8157981 | 2.6657475 |
| 15 | 5703.44 | 574876 | 0.0881359 | 5/6/19 13:21 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6860221 | 6.70217E+12 | 0.027458 | 0.8495505 | 2.6860221 |
| 16 | 5705.99 | 574876 | 0.0881753 | 5/6/19 13:26 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687223 | 6.70217E+12 | 0.0295297 | 0.9136489 | 2.687223 |
| 17 | 5706.85 | 574876 | 0.0881886 | 5/6/19 13:31 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687628 | 6.70217E+12 | 0.029437 | 0.9107808 | 2.687628 |
| 18 | 5726.52 | 574876 | 0.0884926 | 5/6/19 13:36 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6968915 | 6.70217E+12 | 0.0294468 | 0.911084 | 2.6968915 |
| 19 | 5727.41 | 574876 | 0.0885064 | 5/6/19 13:41 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6973107 | 6.70217E+12 | 0.0291977 | 0.9033768 | 2.6973107 |
| 20 | 5742.95 | 574876 | 0.0887465 | 5/6/19 13:46 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7046292 | 6.70217E+12 | 0.0461903 | 1.4291279 | 2.7046292 |
| 21 | 5734.03 | 574876 | 0.0886086 | 5/6/19 13:51 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7004284 | 6.70217E+12 | 0.0300478 | 0.9296789 | 2.7004284 |
| 22 | 5731.45 | 574876 | 0.0885688 | 5/6/19 13:56 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6992133 | 6.70217E+12 | 0.0233358 | 0.7226965 | 2.6992133 |
| 23 | 5739.99 | 574877 | 0.0901743 | 5/6/19 14:01 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7481417 | 6.70217E+12 | 0.0252541 | 0.7813619 | 2.7481417 |
| 24 | 5749.1 | 574877 | 0.0903174 | 5/6/19 14:06 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7525033 | 6.70217E+12 | 0.022385 | 0.6925919 | 2.7525033 |
| 25 | 5732.99 | 574877 | 0.0900643 | 5/6/19 14:11 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7447903 | 6.70217E+12 | 0.0278815 | 0.8626536 | 2.7447903 |
| 26 | 5722.65 | 574878 | 0.0904991 | 5/6/19 14:16 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.75804021 | 6.70217E+12 | 0.0276273 | 0.8547887 | 2.75804021 |
| 27 | 5719.43 | 574878 | 0.0904482 | 5/6/19 14:21 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7564901 | 6.70217E+12 | 0.0401146 | 1.2411457 | 2.7564901 |
| 28 | 5727.52 | 574878 | 0.0905761 | 5/6/19 14:26 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7603892 | 6.70217E+12 | 0.0357633 | 1.1065165 | 2.7603892 |
| 29 | 5719.12 | 574878 | 0.0904433 | 5/6/19 14:31 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7563408 | 6.70217E+12 | 0.0216376 | 0.6694673 | 2.7563408 |
| 30 | 5720.06 | 574880 | 0.0904384 | 5/6/19 14:37 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7561911 | 6.70217E+12 | 0.0206897 | 0.6401393 | 2.7561911 |
| 31 | 5730.64 | 574880 | 0.0906057 | 5/6/19 14:42 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7612891 | 6.70217E+12 | 0.0212322 | 0.6569243 | 2.7612891 |
| 32 | 5734.69 | 574880 | 0.0906697 | 5/6/19 14:47 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7632406 | 6.70217E+12 | 0.0214839 | 0.6647119 | 2.7632406 |
| 33 | 5739.31 | 574881 | 0.090775 | 5/6/19 14:52 | 0.0292446 | 0.9048279 | 4.71935E+13 | 2.7664494 | 6.70217E+12 | 0.0212921 | 0.6587776 | 2.7664494 |
| 34 | 5736.72 | 574882 | 0.0910352 | 5/6/19 14:57 | 0.0292446 | 0.9048279 | 4.70373E+13 | 2.7743811 | 6.70217E+12 | 0.020696 | 0.6403342 | 2.7743811 |
| 35 | 5741.99 | 574883 | 0.0905084 | 5/6/19 15:02 | 0.0212846 | 0.6585455 | 4.73545E+13 | 2.7583257 | 6.70217E+12 | 0.0203623 | 0.6300096 | 2.7583257 |
| 36 | 5733.24 | 574885 | 0.0890821 | 5/6/19 15:07 | 0.0212846 | 0.6585455 | 4.80395E+13 | 2.7148565 | 6.70217E+12 | 0.0198016 | 0.6126615 | 2.7148565 |
| 37 | 5724.73 | 574886 | 0.0885552 | 5/6/19 15:12 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6988006 | 6.70217E+12 | 0.0190006 | 0.5878786 | 2.6988006 |
| 38 | 5709.73 | 574886 | 0.0883232 | 5/6/19 15:17 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6917292 | 6.70217E+12 | 0.0184907 | 0.5721023 | 2.6917292 |
| 39 | 5678.11 | 574887 | 0.088385 | 5/6/19 15:22 | 0.0212846 | 0.6585455 | 4.79528E+13 | 2.6936119 | 6.70217E+12 | 0.021336 | 0.7158278 | 2.6936119 |
| 40 | 5683.95 | 574887 | 0.08835678 | 5/6/19 15:27 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.5468044 | 6.70217E+12 | 0.025128 | 0.7774603 | 2.5468044 |
| 41 | 5700.28 | 574894 | 0.0821747 | 5/6/19 15:32 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.5043487 | 6.70217E+12 | 0.0141482 | 0.4377453 | 2.4971743 |
| 42 | 5681.84 | 574895 | 0.0825354 | 5/6/19 15:37 | 0.0212846 | 0.6585455 | 5.15494E+13 | 2.515341 | 6.70217E+12 | 0.0158794 | 0.4913086 | 2.5043487 |
| 43 | 5697.16 | 574891 | 0.083495 | 5/6/19 15:42 | 0.0212846 | 0.8726101 | 5.16041E+13 | 2.5113225 | 6.70217E+12 | 0.0142467 | 0.4407929 | 2.515341 |
| 44 | 5684.36 | 574892 | 0.0835678 | 5/6/19 15:47 | 0.0212846 | 0.8726101 | 5.16041E+13 | 2.5133225 | 6.70217E+12 | 0.0193804 | 0.5996296 | 2.5113225 |
| 45 | 5683.95 | 574894 | 0.0821747 | 5/6/19 15:52 | 0.0212846 | 0.8726101 | 5.16041E+13 | 2.5130065 | 6.70217E+12 | 0.0145181 | 0.44919 | 2.5130065 |
| 46 | 5700.28 | 574895 | 0.0825354 | 5/6/19 15:57 | 0.0212846 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157287 | 0.486646 | 2.508582 |
| 47 | 5681.84 | 574891 | 0.083495 | 5/6/19 16:02 | 0.0212846 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0162324 | 0.5022305 | 2.508582 |
| 48 | 5696.94 | 574897 | 0.0824036 | 5/6/19 16:07 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 49 | 5700.76 | 574897 | 0.0824588 | 5/6/19 16:12 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 50 | 5684.53 | 574897 | 0.0822241 | 5/6/19 16:17 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 51 | 5689.74 | 574897 | 0.0822994 | 5/6/19 16:23 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 52 | 5682.26 | 574897 | 0.0821912 | 5/6/19 16:23 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.508582 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 53 | 5686.59 | 574898 | 0.0828228 | 5/6/19 16:28 | 0.0282033 | 0.8726101 | 5.12496E+13 | 2.5240987 | 6.70217E+12 | 0.0148626 | 0.4598488 | 2.5240987 |
| 54 | 5681.45 | 574899 | 0.0829971 | 5/6/19 16:33 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5294123 | 6.70217E+12 | 0.0141661 | 0.4382291 | 2.5294123 |
| 55 | 5684.86 | 574899 | 0.0830469 | 5/6/19 16:38 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5309305 | 6.70217E+12 | 0.0039202 | 0.121291 | 2.5309305 |
| 56 | 5679.5 | 574899 | 0.0829686 | 5/6/19 16:43 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5285442 | 6.70217E+12 | 0.0059038 | 0.1826636 | 2.5285442 |
| 57 | 5681.53 | 574901 | 0.0836257 | 5/6/19 16:48 | 0.0282033 | 0.8726101 | 5.07124E+13 | 2.5485671 | 6.70217E+12 | 0.0056964 | 0.1762466 | 2.5485671 |
| 58 | 5689.99 | 574902 | 0.0837969 | 5/6/19 16:53 | 0.0282033 | 0.8726101 | 5.06841E+13 | 2.5537859 | 6.70217E+12 | 0.0098804 | 0.3056996 | 2.5537859 |
| 59 | 5691.01 | 574903 | 0.0831196 | 5/6/19 16:58 | 0.0282033 | 0.8726101 | 5.11063E+13 | 2.5331438 | 6.70217E+12 | 0.0072672 | 0.2248472 | 2.5331438 |
| 60 | 5693.02 | 574904 | 0.0827156 | 5/6/19 17:03 | 0.0245371 | 0.7591779 | 5.14281E+13 | 2.5208339 | 6.70217E+12 | 0.0100674 | 0.3114854 | 2.5208339 |
| 61 | 5700.57 | 574905 | 0.0827554 | 5/6/19 17:08 | 0.0245371 | 0.7591779 | 5.14174E+13 | 2.5220451 | 6.70217E+12 | 0.0086099 | 0.2663903 | 2.5220451 |
| 62 | 5695.51 | 574906 | 0.0812506 | 5/6/19 17:13 | 0.0245371 | 0.7591779 | 5.23232E+13 | 2.4761856 | 6.70217E+12 | 0.0053846 | 0.1665995 | 2.4761856 |
| 63 | 5694.8 | 574907 | 0.0809439 | 5/6/19 17:18 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4668388 | 6.70217E+12 | 0.0017196 | 0.0532044 | 2.4668388 |
| 64 | 5695.29 | 574907 | 0.0809509 | 5/6/19 17:23 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.467051 | 6.70217E+12 | 0.0048459 | 0.1499321 | 2.467051 |
| 65 | 5711.94 | 574907 | 0.0811875 | 5/6/19 17:28 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4742634 | 6.70217E+12 | 0.0072046 | 0.2229103 | 2.4742634 |
| 66 | 5717.52 | 574908 | 0.0815164 | 5/6/19 17:33 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4842862 | 6.70217E+12 | 0.0173188 | 0.5358437 | 2.4842862 |
| 67 | 5717.19 | 574908 | 0.0815117 | 5/6/19 17:38 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4841428 | 6.70217E+12 | 0.0107967 | 0.3340499 | 2.4841428 |
| 68 | 5709.94 | 574908 | 0.0814083 | 5/6/19 17:43 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4809927 | 6.70217E+12 | 0.0175668 | 0.5435168 | 2.4809927 |
| 69 | 5706.05 | 574908 | 0.0813529 | 5/6/19 17:48 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4793025 | 6.70217E+12 | 0.0040943 | 0.1266776 | 2.4793025 |
| 70 | 5698.01 | 574909 | 0.0821371 | 5/6/19 17:53 | 0.0245371 | 0.7591779 | 5.17812E+13 | 2.5032013 | 6.70217E+12 | 0.0062052 | 0.1919889 | 2.5032013 |
| 71 | 5704.79 | 574909 | 0.0822348 | 5/6/19 17:59 | 0.0245371 | 0.7591779 | 5.17812E+13 | 2.5061798 | 6.70217E+12 | 0.0060673 | 0.1877223 | 2.5061798 |
| 72 | 5706.81 | 574909 | 0.0822639 | 5/6/19 18:04 | 0.0188872 | 0.58437 | 5.17812E+13 | 2.5070672 | 6.70217E+12 | 0.004964 | 0.1535862 | 2.5070672 |
| 73 | 5699.44 | 574910 | 0.0819668 | 5/6/19 18:09 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4980119 | 6.70217E+12 | 0.0096617 | 0.2989033 | 2.4980119 |
| 74 | 5697.53 | 574910 | 0.0819393 | 5/6/19 18:14 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4971748 | 6.70217E+12 | 0.0094749 | 0.2931534 | 2.4971748 |
| 75 | 5693.01 | 574910 | 0.0818743 | 5/6/19 18:19 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4951937 | 6.70217E+12 | 0.0097717 | 0.3023364 | 2.4951937 |
| 76 | 5693.01 | 574910 | 0.0818743 | 5/6/19 18:24 | 0.0188872 | 0.58437 | 5.19018E+13 | 2.4951937 | 6.70217E+12 | 0.0113155 | 0.3501016 | 2.4951937 |
| 77 | 5693.97 | 574911 | 0.0828462 | 5/6/19 18:29 | 0.0188872 | 0.58437 | 5.13013E+13 | 2.5248113 | 6.70217E+12 | -0.0060949 | -0.1885762 | 2.5248113 |
| 78 | 5699.54 | 574911 | 0.0829281 | 5/6/19 18:34 | 0.0188872 | 0.58437 | 5.13013E+13 | 2.5273078 | 6.70217E+12 | 0.0003233 | 0.0100029 | 2.5273078 |
| 79 | 5698.15 | 574912 | 0.0833531 | 5/6/19 18:39 | 0.0188872 | 0.58437 | 5.1027E+13 | 2.540262 | 6.70217E+12 | 0.0028852 | 0.0892681 | 2.540262 |
| 80 | 5693.81 | 574913 | 0.0834471 | 5/6/19 18:44 | 0.0188872 | 0.58437 | 5.09307E+13 | 2.5431267 | 6.70217E+12 | 0.0066411 | 0.2054756 | 2.5431267 |
| 81 | 5686.01 | 574914 | 0.0818977 | 5/6/19 18:49 | 0.0188872 | 0.58437 | 5.18232E+13 | 2.4959076 | 6.70217E+12 | 0.0059357 | 0.1836506 | 2.4959076 |
| 82 | 5685.94 | 574915 | 0.0814507 | 5/6/19 18:54 | 0.0188872 | 0.58437 | 5.21069E+13 | 2.4822846 | 6.70217E+12 | -0.0011344 | -0.00350983 | 2.4822846 |
| 83 | 5683.4 | 574915 | 0.0814144 | 5/6/19 18:59 | 0.0188872 | 0.58437 | 5.21069E+13 | 2.4811757 | 6.70217E+12 | 0.0001905 | 0.0058941 | 2.4811757 |
| 84 | 5694.85 | 574915 | 0.0815784 | 5/6/19 19:04 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.4861744 | 6.70217E+12 | 0.0002833 | 0.0087653 | 2.4861744 |
| 85 | 5721.14 | 574915 | 0.081955 | 5/6/19 19:09 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.4976517 | 6.70217E+12 | 0.0025406 | 0.0786062 | 2.4976517 |
| 86 | 5732.53 | 574915 | 0.0821181 | 5/6/19 19:14 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5026242 | 6.70217E+12 | 0.0016449 | 0.0508932 | 2.5026242 |
| 87 | 5732.74 | 574915 | 0.0821211 | 5/6/19 19:19 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5027159 | 6.70217E+12 | 0.0041178 | 0.1274047 | 2.5027159 |
| 88 | 5730.2 | 574915 | 0.0820848 | 5/6/19 19:24 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.501607 | 6.70217E+12 | -0.000019 | -0.0005879 | 2.501607 |
| 89 | 5737.27 | 574915 | 0.082186 | 5/6/19 19:29 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5046935 | 6.70217E+12 | -0.0002028 | -0.0062746 | 2.5046935 |
| 90 | 5731.74 | 574915 | 0.0821068 | 5/6/19 19:34 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5022793 | 6.70217E+12 | 0.0002309 | 0.007144 | 2.5022793 |
| 91 | 5727.94 | 574915 | 0.0820524 | 5/6/19 19:40 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5066204 | 6.70217E+12 | 0.0130869 | 0.4049087 | 2.5066204 |
| 92 | 5741.23 | 574915 | 0.0822428 | 5/6/19 19:45 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5064223 | 6.70217E+12 | 0.0122933 | 0.3803547 | 2.5064223 |
| 93 | 5740.52 | 574915 | 0.0822326 | 5/6/19 19:50 | 0.0193163 | 0.5976463 | 5.21069E+13 | 2.5061123 | 6.70217E+12 | 0.0089193 | 0.2759631 | 2.5061123 |
| 94 | 5749.19 | 574916 | 0.08668 | 5/6/19 19:55 | 0.0193163 | 0.5976463 | 4.9508E+13 | 2.6416525 | 6.70217E+12 | 0.0021355 | 0.0660724 | 2.6416525 |
| 95 | 5745.01 | 574916 | 0.086617 | 5/6/19 20:00 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6397319 | 6.70217E+12 | -0.001813 | -0.0560942 | 2.6397319 |
| 96 | 5763.99 | 574916 | 0.0869032 | 5/6/19 20:05 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6484528 | 6.70217E+12 | -0.0003708 | -0.0114726 | 2.6484528 |
| 97 | 5769.68 | 574916 | 0.086989 | 5/6/19 20:10 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6510673 | 6.70217E+12 | 0.0062241 | 0.1925737 | 2.6510673 |
| 98 | 5769.14 | 574917 | 0.0882187 | 5/6/19 20:15 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6885453 | 6.70217E+12 | 0.0116013 | 0.3589442 | 2.6885453 |
| 99 | 5755.39 | 574917 | 0.0880085 | 5/6/19 20:20 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6821375 | 6.70217E+12 | 0.0009813 | 0.0303614 | 2.6821375 |
| 100 | 5754.1 | 574917 | 0.0879887 | 5/6/19 20:25 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6815363 | 6.70217E+12 | -0.016407 | -0.4993933 | 2.6815363 |
| 101 | 5771.1 | 574917 | 0.0882487 | 5/6/19 20:30 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6894587 | 6.70217E+12 | -0.017408 | -0.5405466 | 2.6894587 |
| 102 | 5764.05 | 574918 | 0.0890788 | 5/6/19 20:35 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.714756 | 6.70217E+12 | -0.0175085 | -0.541713 | 2.714756 |
| 103 | 5752.2 | 574918 | 0.0888956 | 5/6/19 20:40 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7091749 | 6.70217E+12 | -0.0038463 | -0.1190045 | 2.7091749 |

CONFIDENTIAL

exelon4_modeling_05092019

BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 104 | 5755.49 | 574918 | 0.0889465 | 5/6/19 20:45 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7107244 | 6.70217E+12 | -0.0004318 | -0.0133599 | 2.7107244 |
| 105 | 5762.02 | 574919 | 0.0902091 | 5/6/19 20:50 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7492027 | 6.70217E+12 | 0.0004104 | 0.0126978 | 2.7492027 |
| 106 | 5760.7 | 574919 | 0.0901884 | 5/6/19 20:55 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7495729 | 6.70217E+12 | -0.0009508 | -0.0294178 | 2.7485729 |
| 107 | 5762.49 | 574920 | 0.0902164 | 5/6/19 21:02 | 0.0175071 | 0.5416697 | 4.76774E+13 | 2.749427 | 6.70217E+12 | 0.0007073 | 0.0218839 | 2.749427 |
| 108 | 5774.99 | 574920 | 0.1001885 | 5/6/19 21:19 | 0.0175071 | 0.5242793 | 4.74463E+13 | 2.9553058 | 6.70217E+12 | -0.0013119 | -0.039287 | 2.9553058 |
| 109 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 110 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 111 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 112 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 113 | 5843.89 | 574923 | 0.1041911 | 5/6/19 21:52 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0733748 | 6.70217E+12 | 0.0001052 | 0.0031504 | 3.0733748 |
| 114 | 5889.14 | 574923 | 0.1049979 | 5/6/19 21:57 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0971724 | 6.70217E+12 | 0.0047856 | 0.1433128 | 3.0971724 |
| 115 | 5938.96 | 574925 | 0.1060149 | 5/6/19 22:02 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1271721 | 6.70217E+12 | 0.0012328 | 0.0369183 | 3.1271721 |
| 116 | 5924.06 | 574925 | 0.105749 | 5/6/19 22:07 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1193265 | 6.70217E+12 | -0.0183554 | -0.549683 | 3.1193265 |
| 117 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:15 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 118 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 119 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 120 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 121 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 122 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 123 | 5900.68 | 574927 | 0.1057464 | 5/6/19 22:23 | 0.0137884 | 0.4129166 | 4.59309E+13 | 3.119251 | 6.70217E+12 | 0.0035913 | 0.1075475 | 3.119251 |
| 124 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 125 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 126 | 5898.4 | 574930 | 0.1031447 | 5/6/19 22:35 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0425064 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0425064 |
| 127 | 5893.05 | 574930 | 0.1030511 | 5/6/19 22:37 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0397468 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0397468 |
| 128 | 5897.36 | 574930 | 0.1031265 | 5/6/19 22:42 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.04197 | 6.70217E+12 | -0.0236925 | -0.7095114 | 3.04197 |
| 129 | 5899.22 | 574931 | 0.1032757 | 5/6/19 22:47 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.046371 | 6.70217E+12 | -0.0155618 | -0.466024 | 3.046371 |
| 130 | 5901.5 | 574931 | 0.1033156 | 5/6/19 22:52 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.0475484 | 6.70217E+12 | -0.0215767 | -0.6461502 | 3.0475484 |
| 131 | 5895.01 | 574932 | 0.1028817 | 5/6/19 22:57 | 0.0137884 | 0.4129166 | 4.71645E+13 | 3.0347496 | 6.70217E+12 | -0.0188905 | -0.5657075 | 3.0347496 |
| 132 | 5882.85 | 574943 | 0.1003326 | 5/7/19 0:02 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9595589 | 6.70217E+12 | -0.002652 | -0.0794186 | 2.9595589 |
| 133 | 5891.99 | 574943 | 0.1004885 | 5/7/19 0:07 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9641571 | 6.70217E+12 | 0.0003922 | 0.0117451 | 2.9641571 |
| 134 | 5896.7 | 574944 | 0.1020246 | 5/7/19 0:12 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0094662 | 6.70217E+12 | 0.0109642 | 0.3283412 | 3.0094662 |
| 135 | 5903.84 | 574944 | 0.1021481 | 5/7/19 0:17 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0131102 | 6.70217E+12 | 0.0001877 | 0.005621 | 3.0131102 |
| 136 | 5911.06 | 574944 | 0.102273 | 5/7/19 0:22 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0167951 | 6.70217E+12 | -0.0190565 | -0.5706787 | 3.0167951 |
| 137 | 5885.39 | 574945 | 0.1028414 | 5/7/19 0:27 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0335618 | 6.70217E+12 | -0.005721 | -0.1713249 | 3.0335618 |
| 138 | 5895.99 | 574945 | 0.1030267 | 5/7/19 0:32 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0390254 | 6.70217E+12 | 0.005387 | 0.1613227 | 3.0390254 |
| 139 | 5897.07 | 574945 | 0.1030455 | 5/7/19 0:37 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0395821 | 6.70217E+12 | 0.0090961 | 0.2723979 | 3.0395821 |
| 140 | 5898.51 | 574945 | 0.1030707 | 5/7/19 0:42 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0403243 | 6.70217E+12 | 0.0000416 | 0.0012458 | 3.0403243 |
| 141 | 5901.99 | 574945 | 0.1031315 | 5/7/19 0:47 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0421181 | 6.70217E+12 | 0.0002217 | 0.0066392 | 3.0421181 |
| 142 | 5889.59 | 574946 | 0.1043197 | 5/7/19 0:52 | 0.0098383 | 0.2946243 | 4.64716E+13 | 3.0771656 | 6.70217E+12 | -0.0026672 | -0.0798737 | 3.0771656 |
| 143 | 5889.01 | 574947 | 0.1040736 | 5/7/19 0:57 | 0.0098383 | 0.2946243 | 4.65768E+13 | 3.0699085 | 6.70217E+12 | -0.0003307 | -0.0099034 | 3.0699085 |
| 144 | 5877.69 | 574947 | 0.1038736 | 5/7/19 1:02 | 0.0105202 | 0.3150449 | 4.65768E+13 | 3.0640074 | 6.70217E+12 | -0.0003011 | -0.0090169 | 3.0640074 |
| 145 | 5889.43 | 574948 | 0.1042298 | 5/7/19 1:07 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0745154 | 6.70217E+12 | -0.0001362 | -0.0040787 | 3.0745154 |
| 146 | 5887.99 | 574948 | 0.1042043 | 5/7/19 1:12 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0737637 | 6.70217E+12 | 0.0091898 | 0.2752039 | 3.0737637 |
| 147 | 5867.4 | 574948 | 0.1038399 | 5/7/19 1:17 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0630149 | 6.70217E+12 | 0.0091883 | 0.275159 | 3.0630149 |
| 148 | 5883.85 | 574950 | 0.1044213 | 5/7/19 1:22 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0801634 | 6.70217E+12 | 0.0098517 | 0.2950256 | 3.0801634 |
| 149 | 5871.24 | 574950 | 0.1041975 | 5/7/19 1:27 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0735621 | 6.70217E+12 | 0.0110652 | 0.3313659 | 3.0735621 |
| 150 | 5870.35 | 574950 | 0.1041817 | 5/7/19 1:32 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0730962 | 6.70217E+12 | 0.0117356 | 0.3514421 | 3.0730962 |
| 151 | 5880.51 | 574950 | 0.104362 | 5/7/19 1:37 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0784149 | 6.70217E+12 | 0.0114298 | 0.3422844 | 3.0784149 |
| 152 | 5887.56 | 574951 | 0.1056193 | 5/7/19 1:42 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1155019 | 6.70217E+12 | 0.0158031 | 0.4732502 | 3.1155019 |
| 153 | 5888.94 | 574951 | 0.1056441 | 5/7/19 1:47 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1162321 | 6.70217E+12 | 0.0139082 | 0.4165042 | 3.1162321 |
| 154 | 5890.07 | 574951 | 0.1056643 | 5/7/19 1:52 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1168301 | 6.70217E+12 | 0.0141407 | 0.4234668 | 3.1168301 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 155 | 5887.93 | 574952 | 0.1061226 | 5/7/19 1:57 | 0.0105202 | 0.3150449 | 4.56692E+13 | 3.1303483 | 6.70217E+12 | 0.0129154 | 0.3867732 | 3.1303483 |
| 156 | 5887.77 | 574953 | 0.1056897 | 5/7/19 2:02 | 0.011378 | 0.3407332 | 4.57927E+13 | 3.117579 | 6.70217E+12 | 0.0142018 | 0.4252966 | 3.117579 |
| 157 | 5880.52 | 574954 | 0.1043159 | 5/7/19 2:07 | 0.011378 | 0.3407332 | 4.6017E+13 | 3.0770561 | 6.70217E+12 | 0.0139436 | 0.4175643 | 3.0770561 |
| 158 | 5875.01 | 574954 | 0.1042182 | 5/7/19 2:12 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.074173 | 6.70217E+12 | 0.0105143 | 0.3148682 | 3.074173 |
| 159 | 5873.6 | 574954 | 0.1041932 | 5/7/19 2:17 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0734352 | 6.70217E+12 | 0.0094361 | 0.2825797 | 3.0734352 |
| 160 | 5871.85 | 574955 | 0.1044686 | 5/7/19 2:22 | 0.011378 | 0.3407332 | 4.62656E+13 | 3.0815582 | 6.70217E+12 | 0.0088951 | 0.2663786 | 3.0815582 |
| 161 | 5871.01 | 574956 | 0.103617 | 5/7/19 2:27 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0564397 | 6.70217E+12 | 0.0093072 | 0.2787196 | 3.0564397 |
| 162 | 5859.85 | 574956 | 0.1034201 | 5/7/19 2:32 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0506298 | 6.70217E+12 | 0.0120542 | 0.3609831 | 3.0506298 |
| 163 | 5865.94 | 574956 | 0.1035275 | 5/7/19 2:37 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0538003 | 6.70217E+12 | 0.0128926 | 0.3860904 | 3.0538003 |
| 164 | 5869.1 | 574956 | 0.1035833 | 5/7/19 2:42 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0554454 | 6.70217E+12 | 0.0141064 | 0.4224397 | 3.0554454 |
| 165 | 5877.6 | 574956 | 0.1037333 | 5/7/19 2:47 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0598705 | 6.70217E+12 | 0.0141304 | 0.4231584 | 3.0598705 |
| 166 | 5877.18 | 574957 | 0.1057538 | 5/7/19 2:52 | 0.011378 | 0.3407332 | 4.57448E+13 | 3.1194692 | 6.70217E+12 | 0.0141067 | 0.4224486 | 3.1194692 |
| 167 | 5885.01 | 574958 | 0.1054291 | 5/7/19 2:57 | 0.011378 | 0.3407332 | 4.59468E+13 | 3.1098919 | 6.70217E+12 | 0.0188926 | 0.5657704 | 3.1098919 |
| 168 | 5882.93 | 574959 | 0.1056834 | 5/7/19 3:02 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1173937 | 6.70217E+12 | 0.0159616 | 0.4779967 | 3.1173937 |
| 169 | 5880.11 | 574959 | 0.1056328 | 5/7/19 3:07 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1158994 | 6.70217E+12 | 0.0162983 | 0.4880798 | 3.1158994 |
| 170 | 5876.76 | 574959 | 0.1055726 | 5/7/19 3:12 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1141242 | 6.70217E+12 | 0.0123771 | 0.3706529 | 3.1141242 |
| 171 | 5875.44 | 574959 | 0.1055489 | 5/7/19 3:17 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1134247 | 6.70217E+12 | 0.0104838 | 0.3139549 | 3.1134247 |
| 172 | 5868.65 | 574959 | 0.1054269 | 5/7/19 3:22 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1098266 | 6.70217E+12 | 0.0135372 | 0.405394 | 3.1098266 |
| 173 | 5871.6 | 574959 | 0.1054799 | 5/7/19 3:27 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1113899 | 6.70217E+12 | 0.0142273 | 0.4260602 | 3.1113899 |
| 174 | 5871.6 | 574959 | 0.1054799 | 5/7/19 3:32 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1113899 | 6.70217E+12 | 0.0143862 | 0.4308187 | 3.1113899 |
| 175 | 5877.57 | 574959 | 0.1055871 | 5/7/19 3:37 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1145334 | 6.70217E+12 | 0.0142716 | 0.4273868 | 3.1145334 |
| 176 | 5876.48 | 574959 | 0.1055676 | 5/7/19 3:42 | 0.0110606 | 0.3312281 | 4.582E+13 | 3.1139758 | 6.70217E+12 | 0.0142134 | 0.425644 | 3.1139758 |
| 177 | 5868.98 | 574960 | 0.109055 | 5/7/19 3:47 | 0.0110606 | 0.3312281 | 4.42981E+13 | 3.2168461 | 6.70217E+12 | 0.0124885 | 0.3739889 | 3.2168461 |
| 178 | 5865.34 | 574960 | 0.1089874 | 5/7/19 3:52 | 0.0110606 | 0.3312281 | 4.42981E+13 | 3.2148509 | 6.70217E+12 | 0.0128153 | 0.3837755 | 3.2148509 |
| 179 | 5869.73 | 574961 | 0.1097753 | 5/7/19 3:57 | 0.0110606 | 0.3312281 | 4.40131E+13 | 3.2380924 | 6.70217E+12 | 0.0125425 | 0.3756061 | 3.2380924 |
| 180 | 5876.57 | 574962 | 0.1082718 | 5/7/19 4:02 | 0.0132424 | 0.3965657 | 4.46763E+13 | 3.1937442 | 6.70217E+12 | 0.012019 | 0.359929 | 3.1937442 |
| 181 | 5864.77 | 574962 | 0.1080544 | 5/7/19 4:07 | 0.0132424 | 0.3965657 | 4.46763E+13 | 3.1873313 | 6.70217E+12 | 0.0116681 | 0.3494207 | 3.1873313 |
| 182 | 5870.49 | 574963 | 0.1086102 | 5/7/19 4:12 | 0.0132424 | 0.3965657 | 4.4491E+13 | 3.2037267 | 6.70217E+12 | 0.012883 | 0.3858029 | 3.2037267 |
| 183 | 5892.85 | 574964 | 0.1086378 | 5/7/19 4:17 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.2045387 | 6.70217E+12 | 0.0113387 | 0.3395563 | 3.2045387 |
| 184 | 5893.36 | 574964 | 0.1086472 | 5/7/19 4:22 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.204816 | 6.70217E+12 | 0.0115719 | 0.3465398 | 3.204816 |
| 185 | 5890.81 | 574964 | 0.1086002 | 5/7/19 4:27 | 0.0132424 | 0.3965657 | 4.46491E+13 | 3.2034293 | 6.70217E+12 | 0.0118547 | 0.3550087 | 3.2034293 |
| 186 | 5894.23 | 574965 | 0.1080396 | 5/7/19 4:32 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1868941 | 6.70217E+12 | 0.0122344 | 0.3663795 | 3.1868941 |
| 187 | 5898.56 | 574965 | 0.108119 | 5/7/19 4:37 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1892353 | 6.70217E+12 | 0.0138738 | 0.4154741 | 3.1892353 |
| 188 | 5908.64 | 574965 | 0.1083037 | 5/7/19 4:42 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1946853 | 6.70217E+12 | 0.014388 | 0.4308726 | 3.1946853 |
| 189 | 5915.11 | 574965 | 0.1084223 | 5/7/19 4:47 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1981835 | 6.70217E+12 | 0.0166224 | 0.4977855 | 3.1981835 |
| 190 | 5909.7 | 574965 | 0.1083231 | 5/7/19 4:52 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1952584 | 6.70217E+12 | 0.0144629 | 0.4331156 | 3.1952584 |
| 191 | 5906.81 | 574966 | 0.1085559 | 5/7/19 4:57 | 0.0132424 | 0.3965657 | 4.47887E+13 | 3.2021242 | 6.70217E+12 | 0.014704 | 0.4403358 | 3.2021242 |
| 192 | 5914.74 | 574966 | 0.1087016 | 5/7/19 5:02 | 0.0163996 | 0.4911134 | 4.47887E+13 | 3.2064231 | 6.70217E+12 | 0.0082133 | 0.245961 | 3.2064231 |
| 193 | 5917.1 | 574967 | 0.109481 | 5/7/19 5:07 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2294129 | 6.70217E+12 | 0.0137796 | 0.4126531 | 3.2294129 |
| 194 | 5912.39 | 574967 | 0.1093939 | 5/7/19 5:12 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2268423 | 6.70217E+12 | 0.0156701 | 0.4692673 | 3.2268423 |
| 195 | 5894.35 | 574968 | 0.1094478 | 5/7/19 5:17 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2284315 | 6.70217E+12 | 0.0146488 | 0.4386827 | 3.2284315 |
| 196 | 5898.35 | 574968 | 0.109522 | 5/7/19 5:22 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2306223 | 6.70217E+12 | 0.0145908 | 0.4369458 | 3.2306223 |
| 197 | 5902.16 | 574969 | 0.1079698 | 5/7/19 5:27 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1848344 | 6.70217E+12 | 0.0155564 | 0.4658623 | 3.1848344 |
| 198 | 5900.85 | 574969 | 0.1079458 | 5/7/19 5:32 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1841275 | 6.70217E+12 | 0.0134736 | 0.4034894 | 3.1841275 |
| 199 | 5900.34 | 574969 | 0.1079365 | 5/7/19 5:37 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1838523 | 6.70217E+12 | 0.0130804 | 0.3917144 | 3.1838523 |
| 200 | 5898.32 | 574969 | 0.1078995 | 5/7/19 5:42 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1827623 | 6.70217E+12 | 0.0152049 | 0.4553361 | 3.1827623 |
| 201 | 5896.02 | 574970 | 0.1092694 | 5/7/19 5:47 | 0.0163996 | 0.4911134 | 4.44149E+13 | 3.2231712 | 6.70217E+12 | 0.0153738 | 0.4603941 | 3.2231712 |
| 202 | 5901.06 | 574971 | 0.1070272 | 5/7/19 5:52 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1570311 | 6.70217E+12 | 0.0162384 | 0.486286 | 3.1570311 |
| 203 | 5889.23 | 574971 | 0.1068126 | 5/7/19 5:57 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.157021 | 6.70217E+12 | 0.0142726 | 0.4274168 | 3.157021 |
| 204 | 5888.81 | 574971 | 0.106805 | 5/7/19 6:02 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1504774 | 6.70217E+12 | 0.0140196 | 0.4198403 | 3.1504774 |
| 205 | 5888.88 | 574971 | 0.1068063 | 5/7/19 6:07 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1505149 | 6.70217E+12 | 0.0128572 | 0.3850303 | 3.1505149 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 206 | 5894.99 | 574971 | 0.1069171 | 5/7/19 6:12 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1537837 | 6.70217E+12 | 0.0139901 | 0.4189569 | 3.1537837 |
| 207 | 5888.93 | 574973 | 0.1083283 | 5/7/19 6:17 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1954116 | 6.70217E+12 | 0.0169327 | 0.5070779 | 3.1954116 |
| 208 | 5883.23 | 574973 | 0.10822235 | 5/7/19 6:22 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1932187 | 6.70217E+12 | 0.0161834 | 0.4846389 | 3.1932187 |
| 209 | 5874.07 | 574973 | 0.108055 | 5/7/19 6:27 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1873483 | 6.70217E+12 | 0.0160255 | 0.4799103 | 3.1873483 |
| 210 | 5873.01 | 574975 | 0.1081041 | 5/7/19 6:32 | 0.0219988 | 0.6587907 | 4.47185E+13 | 3.1887959 | 6.70217E+12 | 0.0161849 | 0.4846838 | 3.1887959 |
| 211 | 5877.1 | 574977 | 0.1051264 | 5/7/19 6:37 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1009613 | 6.70217E+12 | 0.0160886 | 0.4817999 | 3.1009613 |
| 212 | 5883.19 | 574977 | 0.1052353 | 5/7/19 6:42 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1041746 | 6.70217E+12 | 0.01829 | 0.5477245 | 3.1041746 |
| 213 | 5883.91 | 574979 | 0.1039877 | 5/7/19 6:47 | 0.0219988 | 0.6587907 | 4.6575E+13 | 3.0673739 | 6.70217E+12 | 0.0197193 | 0.5905273 | 3.0673739 |
| 214 | 5887.01 | 574980 | 0.1024096 | 5/7/19 6:52 | 0.0219988 | 0.6587907 | 4.73176E+13 | 3.0208243 | 6.70217E+12 | 0.0172624 | 0.5169513 | 3.0208243 |
| 215 | 5890.93 | 574981 | 0.1023627 | 5/7/19 6:57 | 0.0219988 | 0.6587907 | 4.73708E+13 | 3.0194404 | 6.70217E+12 | 0.0219934 | 0.658629 | 3.0194404 |
| 216 | 5891.99 | 574981 | 0.1023811 | 5/7/19 7:02 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0199837 | 6.70217E+12 | 0.0190854 | 0.5715441 | 3.0199837 |
| 217 | 5901.6 | 574981 | 0.1025481 | 5/7/19 7:07 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0249094 | 6.70217E+12 | 0.022021 | 0.6594555 | 3.0249094 |
| 218 | 5900.12 | 574982 | 0.1027094 | 5/7/19 7:12 | 0.0252156 | 0.7551232 | 4.72845E+13 | 3.0296666 | 6.70217E+12 | 0.019538 | 0.585098 | 3.0296666 |
| 219 | 5902.76 | 574983 | 0.1021815 | 5/7/19 7:17 | 0.0252156 | 0.7551232 | 4.75501E+13 | 3.0140942 | 6.70217E+12 | 0.0208005 | 0.6229056 | 3.0140942 |
| 220 | 5901.94 | 574985 | 0.1025203 | 5/7/19 7:22 | 0.0252156 | 0.7551232 | 4.73864E+13 | 3.0240881 | 6.70217E+12 | 0.0333844 | 0.9997515 | 3.0240881 |
| 221 | 5902.21 | 574986 | 0.1024856 | 5/7/19 7:27 | 0.0252156 | 0.7551232 | 4.74046E+13 | 3.0230648 | 6.70217E+12 | 0.0226755 | 0.6790556 | 3.0230648 |
| 222 | 5897.09 | 574987 | 0.1012514 | 5/7/19 7:32 | 0.0252156 | 0.7551232 | 4.79408E+13 | 2.9866604 | 6.70217E+12 | 0.0258656 | 0.7745885 | 2.9866604 |
| 223 | 5891.39 | 574988 | 0.1001624 | 5/7/19 7:37 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9545379 | 6.70217E+12 | 0.0217027 | 0.6499235 | 2.9545379 |
| 224 | 5896.98 | 574988 | 0.1002575 | 5/7/19 7:42 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9573413 | 6.70217E+12 | 0.0181457 | 0.5434032 | 2.9573413 |
| 225 | 5915.01 | 574989 | 0.0992602 | 5/7/19 7:47 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9792953 | 6.70217E+12 | 0.0175618 | 0.5259174 | 2.9792953 |
| 226 | 5909.89 | 574989 | 0.0991743 | 5/7/19 7:52 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9523909 | 6.70217E+12 | 0.0176235 | 0.5277651 | 2.9523909 |
| 227 | 5907.41 | 574990 | 0.0997661 | 5/7/19 7:57 | 0.0252156 | 0.7551232 | 4.87396E+13 | 2.9428486 | 6.70217E+12 | 0.2076065 | 6.2171227 | 6.2171227 |
| 228 | 5909.98 | 574990 | 0.0998095 | 5/7/19 8:02 | 0.0276548 | 0.8281691 | 4.87396E+13 | 2.9441289 | 6.70217E+12 | 0.3509108 | 10.5086088 | 10.5086088 |
| 229 | 5885.9 | 574991 | 0.1001084 | 5/7/19 8:07 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9529431 | 6.70217E+12 | 1.0618156 | 31.7978378 | 31.7978378 |
| 230 | 5894.01 | 574991 | 0.1002463 | 5/7/19 8:12 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9570118 | 6.70217E+12 | 0.3477068 | 10.4126596 | 10.4126596 |
| 231 | 5901.61 | 574991 | 0.1003756 | 5/7/19 8:17 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9608247 | 6.70217E+12 | 0.2233212 | 6.6877255 | 6.6877255 |
| 232 | 5901.01 | 574993 | 0.0990295 | 5/7/19 8:22 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9211197 | 6.70217E+12 | 0.1839307 | 5.5081114 | 5.5081114 |
| 233 | 5896.99 | 574993 | 0.098962 | 5/7/19 8:27 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9191298 | 6.70217E+12 | 0.2097637 | 6.2817236 | 6.2817236 |
| 234 | 5903.12 | 574994 | 0.0985656 | 5/7/19 8:32 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9074343 | 6.70217E+12 | 0.0304959 | 0.9132506 | 2.9074343 |
| 235 | 5904.99 | 574994 | 0.0985968 | 5/7/19 8:37 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9083554 | 6.70217E+12 | 0.0290999 | 0.6860751 | 2.9083554 |
| 236 | 5928.02 | 574994 | 0.0989813 | 5/7/19 8:42 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9196982 | 6.70217E+12 | 0.023268 | 0.696799 | 2.9196982 |
| 237 | 5918.93 | 574994 | 0.0988295 | 5/7/19 8:47 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9152212 | 6.70217E+12 | 0.0200853 | 0.6014878 | 2.9152212 |
| 238 | 5920.48 | 574994 | 0.0988554 | 5/7/19 8:52 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9159846 | 6.70217E+12 | 0.02447 | 0.7327949 | 2.9159846 |
| 239 | 5927.27 | 574996 | 0.1000578 | 5/7/19 8:57 | 0.0276548 | 0.8281691 | 4.8761E+13 | 2.9514506 | 6.70217E+12 | 0.0185494 | 0.5554927 | 2.9514506 |
| 240 | 5970.03 | 574997 | 0.0973284 | 5/7/19 9:02 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8709404 | 6.70217E+12 | 0.0182697 | 0.5471166 | 2.8709404 |
| 241 | 5896.92 | 574997 | 0.0961365 | 5/7/19 9:07 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8357824 | 6.70217E+12 | 0.0189375 | 0.567115 | 2.8357824 |
| 242 | 5876.01 | 574998 | 0.0954385 | 5/7/19 9:12 | 0.0268411 | 0.8038015 | 5.06789E+13 | 2.8151949 | 6.70217E+12 | 0.0203296 | 0.6088038 | 2.8151949 |
| 243 | 5818.78 | 574999 | 0.0935121 | 5/7/19 9:17 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.758369 | 6.70217E+12 | 0.0194987 | 0.5839211 | 2.758369 |
| 244 | 5836.61 | 574999 | 0.0937986 | 5/7/19 9:22 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7668213 | 6.70217E+12 | 0.0190273 | 0.5698042 | 2.7668213 |
| 245 | 5852.94 | 574999 | 0.094061 | 5/7/19 9:27 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7745624 | 6.70217E+12 | 0.0201623 | 0.6037937 | 2.7745624 |
| 246 | 5843.39 | 575000 | 0.0949282 | 5/7/19 9:32 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8001417 | 6.70217E+12 | 0.0195915 | 0.5867001 | 2.8001417 |
| 247 | 5840.9 | 575000 | 0.0948878 | 5/7/19 9:37 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.7989485 | 6.70217E+12 | 0.0208798 | 0.6252804 | 2.7989485 |
| 248 | 5844.44 | 575000 | 0.0949453 | 5/7/19 9:42 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8006448 | 6.70217E+12 | 0.0199536 | 0.5975438 | 2.8006448 |
| 249 | 5831.94 | 575001 | 0.0948603 | 5/7/19 9:47 | 0.0268411 | 0.8038015 | 5.06054E+13 | 2.7981392 | 6.70217E+12 | 0.0196606 | 0.5887694 | 2.7981392 |
| 250 | 5840.78 | 575003 | 0.0941941 | 5/7/19 9:52 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7784869 | 6.70217E+12 | 0.0187964 | 0.5628895 | 2.7784869 |
| 251 | 5839.47 | 575003 | 0.094173 | 5/7/19 9:57 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.778637 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.778637 |
| 252 | 5836.55 | 575003 | 0.0941259 | 5/7/19 9:58 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7764747 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7764747 |
| 253 | 5843.59 | 575003 | 0.0942394 | 5/7/19 10:03 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7798236 | 6.70217E+12 | 0.0202762 | 0.6072046 | 2.7798236 |
| 254 | 5851.93 | 575003 | 0.0943739 | 5/7/19 10:08 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.783791 | 6.70217E+12 | 0.02195808 | 0.5863797 | 2.783791 |
| 255 | 5840.6 | 575003 | 0.0941912 | 5/7/19 10:13 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7784013 | 6.70217E+12 | 0.0202654 | 0.6068812 | 2.7784013 |
| 256 | 5841.73 | 575003 | 0.0942094 | 5/7/19 10:18 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7789388 | 6.70217E+12 | 0.020167 | 0.6039344 | 2.7789388 |

CONFIDENTIAL

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 257 | 5837.26 | 575004 | 0.0966021 | 5/7/19 10:23 | 0.0287164 | 0.8599605 | 4.97383E+13 | 2.8495172 | 6.70217E+12 | 0.0196567 | 0.5886526 | 2.8495172 |
| 258 | 5843.1 | 575004 | 0.0966987 | 5/7/19 10:28 | 0.0287164 | 0.8599605 | 4.97383E+13 | 2.853368 | 6.70217E+12 | 0.0207215 | 0.6205399 | 2.852368 |
| 259 | 5843.45 | 575005 | 0.0974035 | 5/7/19 10:35 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8731576 | 6.70217E+12 | 0.0201838 | 0.6044375 | 2.8731576 |
| 260 | 5841.01 | 575005 | 0.0973629 | 5/7/19 10:35 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8719579 | 6.70217E+12 | 0.0198071 | 0.5931566 | 2.8719579 |
| 261 | 5844.02 | 575005 | 0.097413 | 5/7/19 10:42 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8734379 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8734379 |
| 262 | 5844.02 | 575005 | 0.097413 | 5/7/19 10:42 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8734379 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8734379 |
| 263 | 5843.32 | 575005 | 0.0974014 | 5/7/19 10:43 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730937 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8730937 |
| 264 | 5843.32 | 575005 | 0.0974014 | 5/7/19 10:44 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730937 | 6.70217E+12 | 0.0200159 | 0.5994095 | 2.8730937 |
| 265 | 5843.18 | 575005 | 0.097399 | 5/7/19 10:45 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730249 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8730249 |
| 266 | 5843.18 | 575005 | 0.097399 | 5/7/19 10:46 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8730249 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8730249 |
| 267 | 5843.81 | 575005 | 0.0974095 | 5/7/19 10:48 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8733347 | 6.70217E+12 | 0.0201643 | 0.6038536 | 2.8733347 |
| 268 | 5855.01 | 575005 | 0.0975962 | 5/7/19 10:51 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8788416 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8788416 |
| 269 | 5853.18 | 575005 | 0.0975657 | 5/7/19 10:52 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8779418 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8779418 |
| 270 | 5853.18 | 575005 | 0.0975657 | 5/7/19 10:53 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8779418 | 6.70217E+12 | 0.0202597 | 0.6067105 | 2.8779418 |
| 271 | 5854.99 | 575005 | 0.0975959 | 5/7/19 10:58 | 0.0287164 | 0.8599605 | 4.93814E+13 | 2.8788317 | 6.70217E+12 | 0.0204901 | 0.6136102 | 2.8788317 |
| 272 | 5855.01 | 575005 | 0.0975962 | 5/7/19 11:03 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.8788416 | 6.70217E+12 | 0.019272 | 0.5771322 | 2.8788416 |
| 273 | 5862.23 | 575005 | 0.0977166 | 5/7/19 11:08 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.8823916 | 6.70217E+12 | 0.0185107 | 0.5543338 | 2.8823916 |
| 274 | 5868.68 | 575005 | 0.0978241 | 5/7/19 11:13 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.885563 | 6.70217E+12 | 0.0182389 | 0.5461943 | 2.885563 |
| 275 | 5877.1 | 575005 | 0.0979644 | 5/7/19 11:18 | 0.0273473 | 0.8189605 | 4.93814E+13 | 2.889703 | 6.70217E+12 | 0.0175485 | 0.5255191 | 2.889703 |
| 276 | 5880.82 | 575006 | 0.1020763 | 5/7/19 11:23 | 0.0273473 | 0.8189605 | 4.74222E+13 | 3.0109929 | 6.70217E+12 | 0.0171425 | 0.5133607 | 3.0109929 |
| 277 | 5885.64 | 575007 | 0.1017322 | 5/7/19 11:28 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.000843 | 6.70217E+12 | 0.0161012 | 0.4821773 | 3.000843 |
| 278 | 5888.81 | 575007 | 0.101787 | 5/7/19 11:33 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.002452 | 6.70217E+12 | 0.0167836 | 0.5026129 | 3.002452 |
| 279 | 5887.01 | 575007 | 0.1017559 | 5/7/19 11:38 | 0.0273473 | 0.8189605 | 4.76216E+13 | 3.0015415 | 6.70217E+12 | 0.017405 | 0.5212217 | 3.0015415 |
| 280 | 5885.87 | 575009 | 0.1022383 | 5/7/19 11:43 | 0.0273473 | 0.8189605 | 4.73877E+13 | 3.0157712 | 6.70217E+12 | 0.0181379 | 0.5431696 | 3.0157712 |
| 281 | 5882.45 | 575010 | 0.1025602 | 5/7/19 11:48 | 0.0273473 | 0.8189605 | 4.72115E+13 | 3.0252654 | 6.70217E+12 | 0.0188967 | 0.5658932 | 3.0252654 |
| 282 | 5889.31 | 575010 | 0.1026798 | 5/7/19 11:53 | 0.0273473 | 0.8189605 | 4.72115E+13 | 3.0287934 | 6.70217E+12 | 0.0191234 | 0.5726821 | 3.0287934 |
| 283 | 5888.74 | 575011 | 0.1032466 | 5/7/19 11:58 | 0.0273473 | 0.8189605 | 4.69478E+13 | 3.0455122 | 6.70217E+12 | 0.0189953 | 0.5688459 | 3.0455122 |
| 284 | 5894.74 | 575011 | 0.1033518 | 5/7/19 12:03 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0486153 | 6.70217E+12 | 0.0201972 | 0.6048388 | 3.0486153 |
| 285 | 5895.72 | 575011 | 0.1033689 | 5/7/19 12:08 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0491221 | 6.70217E+12 | 0.0246114 | 0.7370294 | 3.0491221 |
| 286 | 5907.12 | 575011 | 0.1035688 | 5/7/19 12:13 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0550179 | 6.70217E+12 | 0.0195085 | 0.5842145 | 3.0550179 |
| 287 | 5908.19 | 575013 | 0.1040015 | 5/7/19 12:18 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0677806 | 6.70217E+12 | 0.0177224 | 0.5307268 | 3.0677806 |
| 288 | 5895.99 | 575013 | 0.1037867 | 5/7/19 12:23 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0614459 | 6.70217E+12 | 0.0163821 | 0.4905893 | 3.0614459 |
| 289 | 5898.02 | 575014 | 0.1043706 | 5/7/19 12:27 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0786681 | 6.70217E+12 | 0.0162962 | 0.4880169 | 3.0786681 |
| 290 | 5895.6 | 575014 | 0.1043278 | 5/7/19 12:32 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0774049 | 6.70217E+12 | 0.0164602 | 0.4929281 | 3.0774049 |
| 291 | 5887.34 | 575016 | 0.1041844 | 5/7/19 12:37 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0731761 | 6.70217E+12 | 0.0200409 | 0.6001582 | 3.0731761 |
| 292 | 5889.4 | 575016 | 0.1042209 | 5/7/19 12:42 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0742514 | 6.70217E+12 | 0.0215114 | 0.6441947 | 3.0742514 |
| 293 | 5893.65 | 575016 | 0.1042961 | 5/7/19 12:47 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0764699 | 6.70217E+12 | 0.020945 | 0.6272329 | 3.0764699 |
| 294 | 5893.83 | 575018 | 0.1033386 | 5/7/19 12:52 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0482275 | 6.70217E+12 | 0.0215906 | 0.6465665 | 3.0482275 |
| 295 | 5890.09 | 575018 | 0.103273 | 5/7/19 12:57 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0462932 | 6.70217E+12 | 0.0199465 | 0.5973312 | 3.0462932 |
| 296 | 5887.86 | 575018 | 0.1032339 | 5/7/19 13:02 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0451399 | 6.70217E+12 | 0.0182097 | 0.5453198 | 3.0451399 |
| 297 | 5877.45 | 575018 | 0.1030514 | 5/7/19 13:07 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0397559 | 6.70217E+12 | 0.0171154 | 0.5125492 | 3.0397559 |
| 298 | 5880.76 | 575018 | 0.1031095 | 5/7/19 13:12 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0414678 | 6.70217E+12 | 0.0158291 | 0.4740288 | 3.0414678 |
| 299 | 5885.01 | 575018 | 0.103184 | 5/7/19 13:17 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0436659 | 6.70217E+12 | 0.0156969 | 0.4700698 | 3.0436659 |
| 300 | 5886.65 | 575019 | 0.105185 | 5/7/19 13:22 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.10269 | 6.70217E+12 | 0.0194576 | 0.5826903 | 3.10269 |
| 301 | 5886.81 | 575019 | 0.1051878 | 5/7/19 13:27 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.1027744 | 6.70217E+12 | 0.0237637 | 0.7116436 | 3.1027744 |
| 302 | 5886.02 | 575019 | 0.1051737 | 5/7/19 13:32 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.102358 | 6.70217E+12 | 0.034183 | 1.0236669 | 3.102358 |
| 303 | 5878.86 | 575019 | 0.1050458 | 5/7/19 13:37 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0985841 | 6.70217E+12 | 0.4823059 | 14.443454 | 14.443454 |
| 304 | 5879.94 | 575019 | 0.1050651 | 5/7/19 13:42 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0991534 | 6.70217E+12 | 0.1343145 | 4.0222716 | 4.0222716 |
| 305 | 5872.78 | 575020 | 0.1055767 | 5/7/19 13:47 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1142442 | 6.70217E+12 | 0.0287544 | 0.8610984 | 3.1142442 |
| 306 | 5868.57 | 575020 | 0.105501 | 5/7/19 13:52 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1120117 | 6.70217E+12 | 0.0442637 | 1.3255503 | 3.1120117 |
| 307 | 5877.6 | 575020 | 0.1056633 | 5/7/19 13:57 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1168002 | 6.70217E+12 | 0.0156508 | 0.4686893 | 3.1168002 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 308 | 5880.3 | 575021 | 0.1070192 | 5/7/19 14:02 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.156795 | 6.70217E+12 | 0.0212368 | 0.6359714 | 3.156795 |
| 309 | 5873.1 | 575021 | 0.1068882 | 5/7/19 14:07 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1529297 | 6.70217E+12 | 0.0135226 | 0.4049568 | 3.1529297 |
| 310 | 5856.76 | 575021 | 0.1065908 | 5/7/19 14:12 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1441577 | 6.70217E+12 | 0.0161145 | 0.4825756 | 3.1441577 |
| 311 | 5835.32 | 575021 | 0.1062006 | 5/7/19 14:17 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1326478 | 6.70217E+12 | 0.021294 | 0.6376843 | 3.1326478 |
| 312 | 5823.7 | 575021 | 0.1059891 | 5/7/19 14:22 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1264097 | 6.70217E+12 | 0.0232619 | 0.6966164 | 3.1264097 |
| 313 | 5823.9 | 575021 | 0.1059927 | 5/7/19 14:27 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1265171 | 6.70217E+12 | 0.0186602 | 0.5588108 | 3.1265171 |
| 314 | 5844.51 | 575022 | 0.1063678 | 5/7/19 14:32 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1375714 | 6.70217E+12 | 0.0221179 | 0.6623574 | 3.1375814 |
| 315 | 5852.73 | 575022 | 0.1090264 | 5/7/19 14:37 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2160024 | 6.70217E+12 | 0.0160534 | 0.4807458 | 3.2160534 |
| 316 | 5842.59 | 575022 | 0.1088375 | 5/7/19 14:42 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2104306 | 6.70217E+12 | 0.0139152 | 0.4167139 | 3.2104306 |
| 317 | 5844.51 | 575023 | 0.1093454 | 5/7/19 14:47 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2254517 | 6.70217E+12 | 0.0096897 | 0.2901742 | 3.2254517 |
| 318 | 5842.77 | 575023 | 0.1093128 | 5/7/19 14:52 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2244517 | 6.70217E+12 | 0.0082441 | 0.2468833 | 3.2244517 |
| 319 | 5843.27 | 575023 | 0.1093222 | 5/7/19 14:57 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2247277 | 6.70217E+12 | 0.0080116 | 0.2399207 | 3.2247277 |
| 320 | 5849.85 | 575023 | 0.1094453 | 5/7/19 15:02 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.228359 | 6.70217E+12 | 0.004172 | 0.1249375 | 3.228359 |
| 321 | 5844.11 | 575023 | 0.1093379 | 5/7/19 15:07 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2251913 | 6.70217E+12 | 0.0063173 | 0.1891821 | 3.2251913 |
| 322 | 5838.69 | 575023 | 0.1092365 | 5/7/19 15:12 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2222001 | 6.70217E+12 | 0.0074128 | 0.2219887 | 3.2222001 |
| 323 | 5843.57 | 575023 | 0.1093278 | 5/7/19 15:17 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2248932 | 6.70217E+12 | 0.0068169 | 0.2041434 | 3.2248932 |
| 324 | 5844.59 | 575023 | 0.1093469 | 5/7/19 15:22 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2254562 | 6.70217E+12 | 0.0173942 | 0.5208983 | 3.2254562 |
| 325 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:27 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0160868 | 0.481746 | 3.2284363 |
| 326 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:32 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0179579 | 0.5377792 | 3.2284363 |
| 327 | 5862.15 | 575023 | 0.1096754 | 5/7/19 15:37 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.235147 | 6.70217E+12 | 0.0185996 | 0.556996 | 3.235147 |
| 328 | 5861.7 | 575023 | 0.109667 | 5/7/19 15:42 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2348987 | 6.70217E+12 | 0.0164337 | 0.4921345 | 3.2348987 |
| 329 | 5871.48 | 575024 | 0.1144475 | 5/7/19 15:47 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.3759101 | 6.70217E+12 | 0.0172669 | 0.5170861 | 3.3759101 |
| 330 | 5859.1 | 575024 | 0.1142061 | 5/7/19 15:52 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.368792 | 6.70217E+12 | 0.0085437 | 0.2558553 | 3.368792 |
| 331 | 5854.1 | 575025 | 0.1144044 | 5/7/19 15:57 | 0.0200751 | 0.6011823 | 4.21197E+13 | 3.3746406 | 6.70217E+12 | 0.0200752 | 0.6011853 | 3.3746406 |
| 332 | 5843.22 | 575026 | 0.1144995 | 5/7/19 16:02 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3744456 | 6.70217E+12 | 0.0220984 | 0.6617734 | 3.3774456 |
| 333 | 5853.43 | 575026 | 0.1146996 | 5/7/19 16:07 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3833471 | 6.70217E+12 | 0.0156725 | 0.4693391 | 3.3833471 |
| 334 | 5856.16 | 575026 | 0.1147531 | 5/7/19 16:12 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3849425 | 6.70217E+12 | 0.0214597 | 0.6426465 | 3.3849425 |
| 335 | 5854.02 | 575026 | 0.1147111 | 5/7/19 16:17 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3836881 | 6.70217E+12 | 0.0239835 | 0.7182259 | 3.3836881 |
| 336 | 5850.81 | 575026 | 0.1146482 | 5/7/19 16:22 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3818327 | 6.70217E+12 | 0.0167074 | 0.5003309 | 3.3818327 |
| 337 | 5854.62 | 575027 | 0.1163454 | 5/7/19 16:27 | 0.0216225 | 0.6475218 | 4.14207E+13 | 3.3418944 | 6.70217E+12 | 0.0156102 | 0.4674735 | 3.41318944 |
| 338 | 5855.8 | 575028 | 0.1157465 | 5/7/19 16:32 | 0.0216225 | 0.6475218 | 4.16435E+13 | 3.4142287 | 6.70217E+12 | 0.0163249 | 0.4888763 | 3.4142287 |
| 339 | 5856.74 | 575029 | 0.1142802 | 5/7/19 16:37 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3709755 | 6.70217E+12 | 0.0175314 | 0.525007 | 3.3709755 |
| 340 | 5868.02 | 575029 | 0.1145003 | 5/7/19 16:42 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3774679 | 6.70217E+12 | 0.0151098 | 0.4524881 | 3.3774679 |
| 341 | 5872.51 | 575029 | 0.1145879 | 5/7/19 16:47 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3800522 | 6.70217E+12 | 0.0146534 | 0.4388205 | 3.3800522 |
| 342 | 5871.99 | 575029 | 0.1145777 | 5/7/19 16:52 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3797529 | 6.70217E+12 | 0.0175759 | 0.5263396 | 3.3797529 |
| 343 | 5880.77 | 575029 | 0.1147491 | 5/7/19 16:57 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3848064 | 6.70217E+12 | 0.0063504 | 0.1901733 | 3.3848064 |
| 344 | 5886.53 | 575029 | 0.1148614 | 5/7/19 17:02 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3881217 | 6.70217E+12 | 0.0061338 | 0.1836869 | 3.3881217 |
| 345 | 5889.98 | 575029 | 0.1149288 | 5/7/19 17:07 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3901075 | 6.70217E+12 | 0.0028472 | 0.0852641 | 3.3901075 |
| 346 | 5885.16 | 575031 | 0.1147437 | 5/7/19 17:12 | 0.0204922 | 0.6136731 | 4.2212E+13 | 3.3846492 | 6.70217E+12 | 0.0111196 | 0.332995 | 3.3846492 |
| 347 | 5883.88 | 575032 | 0.1144564 | 5/7/19 17:17 | 0.0204922 | 0.6136731 | 4.23148E+13 | 3.3761744 | 6.70217E+12 | 0.0197231 | 0.5906411 | 3.3761744 |
| 348 | 5871.02 | 575033 | 0.114058 | 5/7/19 17:22 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.364421 | 6.70217E+12 | 0.013771 | 0.4123955 | 3.364421 |
| 349 | 5872.05 | 575033 | 0.114078 | 5/7/19 17:27 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.3650113 | 6.70217E+12 | 0.0099314 | 0.2974123 | 3.3650113 |
| 350 | 5878.77 | 575034 | 0.1147072 | 5/7/19 17:32 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3835727 | 6.70217E+12 | 0.0135307 | 0.4051994 | 3.3835727 |
| 351 | 5877.4 | 575034 | 0.1146805 | 5/7/19 17:37 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3827841 | 6.70217E+12 | 0.0143791 | 0.4306061 | 3.3827841 |
| 352 | 5880.39 | 575034 | 0.1147388 | 5/7/19 17:42 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3845051 | 6.70217E+12 | 0.0171643 | 0.5140136 | 3.3845051 |
| 353 | 5871.98 | 575034 | 0.1145747 | 5/7/19 17:47 | 0.0204922 | 0.6136731 | 4.21856E+13 | 3.3796646 | 6.70217E+12 | 0.0179472 | 0.5374588 | 3.3796646 |
| 354 | 5878.4 | 575035 | 0.1155377 | 5/7/19 17:52 | 0.0204922 | 0.6136731 | 4.18797E+13 | 3.4080684 | 6.70217E+12 | 0.0182428 | 0.5463111 | 3.4080684 |
| 355 | 5886.62 | 575035 | 0.1156992 | 5/7/19 17:57 | 0.0204922 | 0.6136731 | 4.18797E+13 | 3.4128341 | 6.70217E+12 | 0.0280718 | 0.8406568 | 3.4128341 |
| 356 | 5896.23 | 575036 | 0.1119906 | 5/7/19 18:02 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.3034392 | 6.70217E+12 | 0.4423178 | 13.2459437 | 13.2459437 |
| 357 | 5898.4 | 575036 | 0.1120318 | 5/7/19 18:08 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.304655 | 6.70217E+12 | 0.19554 | 5.8557712 | 5.8557712 |
| 358 | 5899.98 | 575036 | 0.1120618 | 5/7/19 18:13 | 0.0194272 | 0.5817799 | 4.33372E+13 | 3.3055402 | 6.70217E+12 | 0.0183816 | 0.5504676 | 3.3055402 |

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BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 359 | 5899.98 | 575037 | 0.1118805 | 5/7/19 18:18 | 0.0194272 | 0.5817799 | 4.34075E+13 | 3.3001905 | 6.70217E+12 | 0.0124839 | 0.3738512 | 3.3001905 |
| 360 | 5901.99 | 575039 | 0.1087922 | 5/7/19 18:23 | 0.0194272 | 0.5817799 | 4.46549E+13 | 3.2909042 | 6.70217E+12 | 0.0063404 | 0.1898738 | 3.2909042 |
| 361 | 5899.01 | 575040 | 0.1082466 | 5/7/19 18:28 | 0.0194272 | 0.5817799 | 4.48497E+13 | 3.1903006 | 6.70217E+12 | 0.0069752 | 0.208884 | 3.1903006 |
| 362 | 5899.19 | 575041 | 0.1069708 | 5/7/19 18:33 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1553672 | 6.70217E+12 | 0.0117867 | 0.3529724 | 3.1553672 |
| 363 | 5858.01 | 575041 | 0.1062241 | 5/7/19 18:38 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1333408 | 6.70217E+12 | 0.0008215 | 0.0246012 | 3.1333408 |
| 364 | 5832.84 | 575041 | 0.1057677 | 5/7/19 18:43 | 0.0194272 | 0.5817799 | 4.53937E+13 | 3.1198778 | 6.70217E+12 | 0.007936 | 0.2376567 | 3.1198778 |
| 365 | 5825.57 | 575042 | 0.1062064 | 5/7/19 18:48 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.1328187 | 6.70217E+12 | 0.0131193 | 0.3928793 | 3.1328187 |
| 366 | 5730.23 | 575042 | 0.1044682 | 5/7/19 18:53 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.0815477 | 6.70217E+12 | 0.0147234 | 0.4409168 | 3.0815477 |
| 367 | 5765.61 | 575042 | 0.1051132 | 5/7/19 18:58 | 0.0194272 | 0.5817799 | 4.51499E+13 | 3.100574 | 6.70217E+12 | 0.015851 | 0.4746846 | 3.100574 |
| 368 | 5698.35 | 575042 | 0.103887 | 5/7/19 19:03 | 0.0208363 | 0.6239777 | 4.51499E+13 | 3.0644036 | 6.70217E+12 | 0.0143949 | 0.4310793 | 3.0644036 |
| 369 | 5728.93 | 575043 | 0.104596 | 5/7/19 19:08 | 0.0208363 | 0.6239777 | 4.50844E+13 | 3.0853184 | 6.70217E+12 | 0.0085453 | 0.2559033 | 3.0853184 |
| 370 | 5726.34 | 575044 | 0.1042417 | 5/7/19 19:13 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.0748672 | 6.70217E+12 | 0.0131066 | 0.392499 | 3.0748672 |
| 371 | 5721.68 | 575044 | 0.1041569 | 5/7/19 19:18 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.072365 | 6.70217E+12 | 0.0074483 | 0.2230518 | 3.072365 |
| 372 | 5740.89 | 575044 | 0.1045066 | 5/7/19 19:23 | 0.0208363 | 0.6239777 | 4.52172E+13 | 3.0826801 | 6.70217E+12 | 0.0220669 | 0.6608301 | 3.0826801 |
| 373 | 5739.97 | 575047 | 0.1037772 | 5/7/19 19:28 | 0.0208363 | 0.6239777 | 4.55277E+13 | 3.0611659 | 6.70217E+12 | 0.0206216 | 0.6175482 | 3.0611659 |
| 374 | 5762.15 | 575047 | 0.1041783 | 5/7/19 19:33 | 0.0208363 | 0.6239777 | 4.55277E+13 | 3.0729946 | 6.70217E+12 | 0.0227412 | 0.6810231 | 3.0729946 |
| 375 | 5772.32 | 575048 | 0.1046881 | 5/7/19 19:38 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0880343 | 6.70217E+12 | 0.0213669 | 0.6398674 | 3.0880343 |
| 376 | 5757.52 | 575048 | 0.1044197 | 5/7/19 19:43 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0801167 | 6.70217E+12 | 0.0192512 | 0.5765093 | 3.0801167 |
| 377 | 5780.76 | 575048 | 0.1048412 | 5/7/19 19:48 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0925494 | 6.70217E+12 | 0.0184615 | 0.5528604 | 3.0925494 |
| 378 | 5772.27 | 575049 | 0.1062044 | 5/7/19 19:53 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.1327595 | 6.70217E+12 | 0.0170593 | 0.5108692 | 3.1327595 |
| 379 | 5763.53 | 575049 | 0.1060435 | 5/7/19 19:58 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.128016 | 6.70217E+12 | 0.0193825 | 0.5804413 | 3.128016 |
| 380 | 5774.99 | 575049 | 0.1062544 | 5/7/19 20:03 | 0.0214057 | 0.6410294 | 4.47376E+13 | 3.1342357 | 6.70217E+12 | 0.0225229 | 0.6744858 | 3.1342357 |
| 381 | 5785.64 | 575050 | 0.1067275 | 5/7/19 20:08 | 0.0214057 | 0.6410294 | 4.46214E+13 | 3.1481898 | 6.70217E+12 | 0.0200782 | 0.6012752 | 3.1481898 |
| 382 | 5794.65 | 575051 | 0.1065264 | 5/7/19 20:13 | 0.0214057 | 0.6410294 | 4.47753E+13 | 3.1422582 | 6.70217E+12 | 0.0189119 | 0.5663484 | 3.1422582 |
| 383 | 5794.99 | 575052 | 0.105856 | 5/7/19 20:18 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1224836 | 6.70217E+12 | 0.0188789 | 0.5054668 | 3.1224836 |
| 384 | 5777.32 | 575052 | 0.1055332 | 5/7/19 20:23 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1129625 | 6.70217E+12 | 0.0188787 | 0.5653541 | 3.1129625 |
| 385 | 5779.44 | 575052 | 0.1055719 | 5/7/19 20:28 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1141049 | 6.70217E+12 | 0.0185028 | 0.5540972 | 3.1141049 |
| 386 | 5784.49 | 575053 | 0.1069047 | 5/7/19 20:33 | 0.0214057 | 0.6410294 | 4.45386E+13 | 3.1534189 | 6.70217E+12 | 0.0168679 | 0.5051374 | 3.1534189 |
| 387 | 5792.26 | 575054 | 0.1071284 | 5/7/19 20:38 | 0.0214057 | 0.6410294 | 4.45053E+13 | 3.1600161 | 6.70217E+12 | 0.0100913 | 0.3022008 | 3.1600161 |
| 388 | 5794.99 | 575055 | 0.1078127 | 5/7/19 20:43 | 0.0214057 | 0.6410294 | 4.42437E+13 | 3.1802017 | 6.70217E+12 | 0.0159387 | 0.4773109 | 3.1802017 |
| 389 | 5798.99 | 575056 | 0.1065136 | 5/7/19 20:48 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1418807 | 6.70217E+12 | 0.0155694 | 0.4662516 | 3.1418807 |
| 390 | 5799.99 | 575056 | 0.1065319 | 5/7/19 20:53 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1424225 | 6.70217E+12 | 0.0120816 | 0.3618036 | 3.1424225 |
| 391 | 5792.47 | 575056 | 0.1063938 | 5/7/19 20:58 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1383482 | 6.70217E+12 | 0.0121052 | 0.3625104 | 3.1383482 |
| 392 | 5783.99 | 575057 | 0.1071229 | 5/7/19 21:03 | 0.0187353 | 0.5610598 | 4.4444E+13 | 3.1598544 | 6.70217E+12 | 0.0062082 | 0.1859149 | 3.1598544 |
| 393 | 5798.01 | 575060 | 0.1064196 | 5/7/19 21:08 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1391083 | 6.70217E+12 | 0.0101617 | 0.304309 | 3.1391083 |
| 394 | 5804.99 | 575060 | 0.1065477 | 5/7/19 21:13 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1428873 | 6.70217E+12 | 0.0147359 | 0.4412911 | 3.1428873 |
| 395 | 5804.47 | 575060 | 0.1065382 | 5/7/19 21:18 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1426058 | 6.70217E+12 | 0.0161425 | 0.4834141 | 3.1426058 |
| 396 | 5797.19 | 575061 | 0.1077196 | 5/7/19 21:23 | 0.0187353 | 0.5610598 | 4.42987E+13 | 3.1774565 | 6.70217E+12 | 0.0166747 | 0.4993517 | 3.1774565 |
| 397 | 5796.01 | 575062 | 0.1073179 | 5/7/19 21:28 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1656063 | 6.70217E+12 | 0.0162576 | 0.4868609 | 3.1656063 |
| 398 | 5796.91 | 575062 | 0.1073346 | 5/7/19 21:33 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1660978 | 6.70217E+12 | 0.0154972 | 0.4640895 | 3.1660978 |
| 399 | 5804.49 | 575063 | 0.1082426 | 5/7/19 21:38 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1928815 | 6.70217E+12 | 0.0140195 | 0.4198373 | 3.1928815 |
| 400 | 5807.51 | 575063 | 0.1082989 | 5/7/19 21:43 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1945427 | 6.70217E+12 | 0.0138085 | 0.4135185 | 3.1945427 |
| 401 | 5806.56 | 575064 | 0.107581 | 5/7/19 21:48 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1733683 | 6.70217E+12 | 0.0123646 | 0.3702786 | 3.1733683 |
| 402 | 5797.78 | 575064 | 0.1074184 | 5/7/19 21:53 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1685699 | 6.70217E+12 | 0.0135325 | 0.4052533 | 3.1685699 |
| 403 | 5793.65 | 575064 | 0.1073419 | 5/7/19 21:58 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1663128 | 6.70217E+12 | 0.0143717 | 0.4303845 | 3.1663128 |
| 404 | 5778.02 | 575065 | 0.1070536 | 5/7/19 22:03 | 0.0092857 | 0.2780758 | 4.44269E+13 | 3.1578114 | 6.70217E+12 | 0.0159167 | 0.4766521 | 3.1578114 |
| 405 | 5773.43 | 575066 | 0.1052104 | 5/7/19 22:08 | 0.0092857 | 0.2780758 | 4.51693E+13 | 3.1034402 | 6.70217E+12 | 0.0153253 | 0.4589417 | 3.1034402 |
| 406 | 5779.39 | 575067 | 0.1054664 | 5/7/19 22:13 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1109906 | 6.70217E+12 | 0.0139439 | 0.4175733 | 3.1109906 |
| 407 | 5791.59 | 575067 | 0.105689 | 5/7/19 22:18 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1175577 | 6.70217E+12 | 0.0131096 | 0.3925888 | 3.1175577 |
| 408 | 5790.02 | 575067 | 0.1056603 | 5/7/19 22:23 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1167126 | 6.70217E+12 | 0.0122573 | 0.3670653 | 3.1167126 |
| 409 | 5782.94 | 575067 | 0.1055311 | 5/7/19 22:28 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1129015 | 6.70217E+12 | 0.0136306 | 0.408191 | 3.1129015 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 410 | 5775.43 | 575067 | 0.1053941 | 5/7/19 22:33 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1088589 | 6.70217E+12 | 0.0135185 | 0.404834 | 3.1088589 |
| 411 | 5779.99 | 575068 | 0.1067775 | 5/7/19 22:38 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1496656 | 6.70217E+12 | 0.0130395 | 0.3904896 | 3.1496656 |
| 412 | 5785.55 | 575069 | 0.1068802 | 5/7/19 22:43 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1526954 | 6.70217E+12 | 0.0132167 | 0.3957961 | 3.1526954 |
| 413 | 5776.9 | 575070 | 0.1064823 | 5/7/19 22:48 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1409571 | 6.70217E+12 | 0.0151927 | 0.4549707 | 3.1409571 |
| 414 | 5782.35 | 575070 | 0.1065827 | 5/7/19 22:53 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1439203 | 6.70217E+12 | 0.0127496 | 0.381808 | 3.1439203 |
| 415 | 5778.56 | 575070 | 0.1065129 | 5/7/19 22:58 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1418596 | 6.70217E+12 | 0.01094 | 0.3276165 | 3.1418596 |
| 416 | 5807.88 | 575077 | 0.1057164 | 5/8/19 00:03 | 0.010744 | 0.3211747 | 4.52214E+13 | 3.1183659 | 6.70217E+12 | 0.0116913 | 0.3501155 | 3.1183659 |
| 417 | 5804.11 | 575077 | 0.1056478 | 5/8/19 00:08 | 0.010744 | 0.3211747 | 4.52214E+13 | 3.1163417 | 6.70217E+12 | 0.0120928 | 0.3621391 | 3.1163417 |
| 418 | 5801.23 | 575078 | 0.1058179 | 5/8/19 00:13 | 0.010744 | 0.3211747 | 4.51263E+13 | 3.1213604 | 6.70217E+12 | 0.0121536 | 0.3639598 | 3.1213604 |
| 419 | 5791.66 | 575078 | 0.1056434 | 5/8/19 00:18 | 0.010744 | 0.3211747 | 4.51263E+13 | 3.1162113 | 6.70217E+12 | 0.0124538 | 0.3729498 | 3.1162113 |
| 420 | 5795.5 | 575078 | 0.1057134 | 5/8/19 00:23 | 0.010744 | 0.3211747 | 4.51263E+13 | 3.1182774 | 6.70217E+12 | 0.0132227 | 0.3959758 | 3.1182774 |
| 421 | 5795.98 | 575079 | 0.1065412 | 5/8/19 00:28 | 0.010744 | 0.3211747 | 4.47794E+13 | 3.11426942 | 6.70217E+12 | 0.0133711 | 0.4004199 | 3.1426942 |
| 422 | 5799.99 | 575081 | 0.102499 | 5/8/19 00:33 | 0.010744 | 0.3211747 | 4.65775E+13 | 3.0234621 | 6.70217E+12 | 0.0173409 | 0.5193022 | 3.0234621 |
| 423 | 5804.41 | 575082 | 0.1023697 | 5/8/19 00:38 | 0.010744 | 0.3211747 | 4.66719E+13 | 3.0196463 | 6.70217E+12 | 0.0172819 | 0.5175353 | 3.0196463 |
| 424 | 5804.82 | 575084 | 0.1015622 | 5/8/19 00:43 | 0.010744 | 0.3211747 | 4.70463E+13 | 2.9958274 | 6.70217E+12 | 0.0175389 | 0.5252316 | 2.9958274 |
| 425 | 5802.49 | 575086 | 0.0989662 | 5/8/19 00:48 | 0.010744 | 0.3211747 | 4.82609E+13 | 2.9192535 | 6.70217E+12 | 0.0173835 | 0.5205779 | 2.9192535 |
| 426 | 5795.31 | 575086 | 0.0988438 | 5/8/19 00:53 | 0.010744 | 0.3211747 | 4.82609E+13 | 2.9156412 | 6.70217E+12 | 0.0147548 | 0.4418571 | 2.9156412 |
| 427 | 5799.55 | 575087 | 0.0990391 | 5/8/19 00:58 | 0.010744 | 0.3211747 | 4.8201E+13 | 2.9214025 | 6.70217E+12 | 0.0135535 | 0.4058821 | 2.9214025 |
| 428 | 5810.52 | 575087 | 0.0992264 | 5/8/19 1:03 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9269284 | 6.70217E+12 | 0.0126685 | 0.3793793 | 2.9269284 |
| 429 | 5818.01 | 575087 | 0.0993543 | 5/8/19 1:08 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9307013 | 6.70217E+12 | 0.0083531 | 0.2501475 | 2.9307013 |
| 430 | 5819.24 | 575089 | 0.0985572 | 5/8/19 1:13 | 0.0116366 | 0.3484774 | 4.86011E+13 | 2.9071881 | 6.70217E+12 | 0.0126493 | 0.3788044 | 2.9071881 |
| 431 | 5817.29 | 575090 | 0.0973429 | 5/8/19 1:18 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8713676 | 6.70217E+12 | 0.0126278 | 0.3781605 | 2.8713676 |
| 432 | 5820.91 | 575090 | 0.0974051 | 5/8/19 1:23 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8732038 | 6.70217E+12 | 0.0125071 | 0.374546 | 2.8732038 |
| 433 | 5831.99 | 575090 | 0.0975905 | 5/8/19 1:28 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8786729 | 6.70217E+12 | 0.0125147 | 0.3747735 | 2.8786729 |
| 434 | 5837.72 | 575090 | 0.0976864 | 5/8/19 1:33 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8815012 | 6.70217E+12 | 0.0030723 | 0.0920051 | 2.8815012 |
| 435 | 5825.57 | 575090 | 0.0974831 | 5/8/19 1:38 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.875504 | 6.70217E+12 | 0.0007008 | 0.0209866 | 2.875504 |
| 436 | 5834.9 | 575090 | 0.0976392 | 5/8/19 1:43 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8801093 | 6.70217E+12 | 0.002842 | 0.0851084 | 2.8801093 |
| 437 | 5839.94 | 575090 | 0.0977235 | 5/8/19 1:49 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.882597 | 6.70217E+12 | 0.0029206 | 0.0874622 | 2.882597 |
| 438 | 5834.68 | 575090 | 0.0976355 | 5/8/19 1:54 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8800007 | 6.70217E+12 | 0.0037273 | 0.1116202 | 2.8800007 |
| 439 | 5827.66 | 575090 | 0.0975181 | 5/8/19 1:59 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8765356 | 6.70217E+12 | 0.0045235 | 0.1354637 | 2.8765356 |
| 440 | 5833.57 | 575090 | 0.097617 | 5/8/19 2:04 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8794528 | 6.70217E+12 | 0.005794 | 0.1735128 | 2.8794528 |
| 441 | 5837.02 | 575090 | 0.0976747 | 5/8/19 2:09 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8811557 | 6.70217E+12 | 0.0120927 | 0.3621361 | 2.8811557 |
| 442 | 5834.82 | 575091 | 0.1021121 | 5/8/19 2:14 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0120484 | 6.70217E+12 | 0.0138694 | 0.4153423 | 3.0120484 |
| 443 | 5832.01 | 575091 | 0.1020629 | 5/8/19 2:19 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0105978 | 6.70217E+12 | 0.0243003 | 0.727713 | 3.0105978 |
| 444 | 5827.28 | 575091 | 0.1019802 | 5/8/19 2:24 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0081561 | 6.70217E+12 | 0.0146496 | 0.4387067 | 3.0081561 |
| 445 | 5814.3 | 575091 | 0.101753 | 5/8/19 2:29 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0014556 | 6.70217E+12 | 0.013417 | 0.4017944 | 3.0014556 |
| 446 | 5822.06 | 575092 | 0.1015212 | 5/8/19 2:34 | 0.0119665 | 0.3583568 | 4.72051E+13 | 2.9946169 | 6.70217E+12 | 0.013794 | 0.4130843 | 2.9946169 |
| 447 | 5827.69 | 575092 | 0.1016193 | 5/8/19 2:39 | 0.0119665 | 0.3583568 | 4.72051E+13 | 2.9975127 | 6.70217E+12 | 0.0134243 | 0.402013 | 2.9975127 |
| 448 | 5825.01 | 575094 | 0.1011451 | 5/8/19 2:44 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9835236 | 6.70217E+12 | 0.0173396 | 0.5192632 | 2.9835236 |
| 449 | 5825.01 | 575094 | 0.1011451 | 5/8/19 2:49 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9835236 | 6.70217E+12 | 0.0160878 | 0.481776 | 2.9835236 |
| 450 | 5827.65 | 575094 | 0.1011909 | 5/8/19 2:54 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.9848758 | 6.70217E+12 | 0.0135423 | 0.4055467 | 2.9848758 |
| 451 | 5828.98 | 575094 | 0.101214 | 5/8/19 2:59 | 0.0119665 | 0.3583568 | 4.74046E+13 | 2.985557 | 6.70217E+12 | 0.0119787 | 0.3587221 | 2.985557 |
| 452 | 5816.75 | 575095 | 0.1023933 | 5/8/19 3:04 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.020342 | 6.70217E+12 | 0.007941 | 0.2378065 | 3.020342 |
| 453 | 5816.32 | 575095 | 0.1023857 | 5/8/19 3:09 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0201187 | 6.70217E+12 | 0.011828 | 0.3542092 | 3.0201187 |
| 454 | 5822.73 | 575095 | 0.1024985 | 5/8/19 3:14 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0234471 | 6.70217E+12 | 0.0145702 | 0.4363289 | 3.0234471 |
| 455 | 5828.4 | 575095 | 0.1025983 | 5/8/19 3:19 | 0.0120924 | 0.3621271 | 4.67603E+13 | 3.0263913 | 6.70217E+12 | 0.0152655 | 0.4571508 | 3.0263913 |
| 456 | 5829.18 | 575097 | 0.1038705 | 5/8/19 3:24 | 0.0120924 | 0.3621271 | 4.61938E+13 | 3.0639178 | 6.70217E+12 | 0.0169161 | 0.5065808 | 3.0639178 |
| 457 | 5837.98 | 575097 | 0.1040273 | 5/8/19 3:29 | 0.0120924 | 0.3621271 | 4.61938E+13 | 3.0685432 | 6.70217E+12 | 0.0230203 | 0.6893813 | 3.0685432 |
| 458 | 5838.98 | 575098 | 0.1040229 | 5/8/19 3:34 | 0.0120924 | 0.3621271 | 4.62037E+13 | 3.0684122 | 6.70217E+12 | 0.0845618 | 2.532344 | 3.0684122 |
| 459 | 5828.52 | 575098 | 0.1038366 | 5/8/19 3:39 | 0.0120924 | 0.3621271 | 4.62037E+13 | 3.0629154 | 6.70217E+12 | 0.0234107 | 0.7010724 | 3.0629154 |
| 460 | 5822.59 | 575099 | 0.1046272 | 5/8/19 3:44 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0862378 | 6.70217E+12 | 0.0168116 | 0.5034514 | 3.0862378 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 461 | 5803.44 | 575099 | 0.1042831 | 5/8/19 3:49 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0760874 | 6.70217E+12 | 0.0140409 | 0.4204782 | 3.0760874 |
| 462 | 5796.56 | 575099 | 0.1041595 | 5/8/19 3:54 | 0.0120924 | 0.3621271 | 4.58079E+13 | 3.0724407 | 6.70217E+12 | 0.0144936 | 0.4340355 | 3.0724407 |
| 463 | 5807.05 | 575101 | 0.1050426 | 5/8/19 3:59 | 0.0120924 | 0.3621271 | 4.55049E+13 | 3.0984912 | 6.70217E+12 | 0.0119057 | 0.3565336 | 3.0984912 |
| 464 | 5809.78 | 575101 | 0.105092 | 5/8/19 4:04 | 0.0137229 | 0.4109551 | 4.55049E+13 | 3.099478 | 6.70217E+12 | 0.0125622 | 0.376196 | 3.099478 |
| 465 | 5812.68 | 575101 | 0.1051445 | 5/8/19 4:09 | 0.0137229 | 0.4109551 | 4.55049E+13 | 3.1014952 | 6.70217E+12 | 0.0142995 | 0.4282224 | 3.1014952 |
| 466 | 5815.61 | 575102 | 0.1048815 | 5/8/19 4:14 | 0.0137229 | 0.4109551 | 4.5642E+13 | 3.0937385 | 6.70217E+12 | 0.0193516 | 0.5795159 | 3.0937385 |
| 467 | 5808.55 | 575103 | 0.1046033 | 5/8/19 4:19 | 0.0137229 | 0.4109551 | 4.57078E+13 | 3.085325 | 6.70217E+12 | 0.0200764 | 0.6012213 | 3.085325 |
| 468 | 5820.01 | 575104 | 0.1050843 | 5/8/19 4:24 | 0.0137229 | 0.4109551 | 4.55884E+13 | 3.09972 | 6.70217E+12 | 0.0189938 | 0.568801 | 3.09972 |
| 469 | 5816.06 | 575105 | 0.1052763 | 5/8/19 4:29 | 0.0137229 | 0.4109551 | 4.54744E+13 | 3.1053836 | 6.70217E+12 | 0.0230152 | 0.6892285 | 3.1053836 |
| 470 | 5808.82 | 575106 | 0.1053792 | 5/8/19 4:34 | 0.0137229 | 0.4109551 | 4.53734E+13 | 3.1084182 | 6.70217E+12 | 0.0197229 | 0.5906351 | 3.1084182 |
| 471 | 5815.31 | 575106 | 0.1054969 | 5/8/19 4:39 | 0.0137229 | 0.4109551 | 4.53734E+13 | 3.1118911 | 6.70217E+12 | 0.0184185 | 0.5515727 | 3.1118911 |
| 472 | 5818.61 | 575108 | 0.1056718 | 5/8/19 4:44 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1170516 | 6.70217E+12 | 0.0141625 | 0.4241197 | 3.1170516 |
| 473 | 5810.51 | 575108 | 0.1055247 | 5/8/19 4:49 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1127124 | 6.70217E+12 | 0.0159072 | 0.4763676 | 3.1127124 |
| 474 | 5815.11 | 575108 | 0.1056083 | 5/8/19 4:54 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1151766 | 6.70217E+12 | 0.0160139 | 0.4795629 | 3.1151766 |
| 475 | 5808.22 | 575109 | 0.1054956 | 5/8/19 4:59 | 0.0137229 | 0.4109551 | 4.53187E+13 | 3.1118531 | 6.70217E+12 | 0.0129169 | 0.3868181 | 3.1118531 |
| 476 | 5821.06 | 575109 | 0.1057288 | 5/8/19 5:04 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1187323 | 6.70217E+12 | 0.0087613 | 0.2623717 | 3.1187323 |
| 477 | 5830.24 | 575109 | 0.1058956 | 5/8/19 5:09 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1236507 | 6.70217E+12 | 0.0125147 | 0.3747735 | 3.1236507 |
| 478 | 5815.12 | 575110 | 0.1063653 | 5/8/19 5:14 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0158514 | 0.4746966 | 3.1375074 |
| 479 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:19 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0145818 | 0.4366763 | 3.1375074 |
| 480 | 5811.28 | 575111 | 0.1058572 | 5/8/19 5:24 | 0.0172785 | 0.5174335 | 4.51877E+13 | 3.1225197 | 6.70217E+12 | 0.0159657 | 0.4781195 | 3.1225197 |
| 481 | 5814.19 | 575113 | 0.1054793 | 5/8/19 5:29 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1113735 | 6.70217E+12 | 0.0189354 | 0.5670521 | 3.1113735 |
| 482 | 5822.89 | 575113 | 0.1056372 | 5/8/19 5:34 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1160292 | 6.70217E+12 | 0.0168377 | 0.504233 | 3.1160292 |
| 483 | 5825.6 | 575113 | 0.1056863 | 5/8/19 5:39 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1174794 | 6.70217E+12 | 0.0142709 | 0.4273659 | 3.1174794 |
| 484 | 5825.47 | 575114 | 0.1057728 | 5/8/19 5:44 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1200304 | 6.70217E+12 | 0.0162737 | 0.4873431 | 3.1200304 |
| 485 | 5830.59 | 575114 | 0.1058658 | 5/8/19 5:49 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1227726 | 6.70217E+12 | 0.016296 | 0.4880109 | 3.1227726 |
| 486 | 5839.34 | 575114 | 0.1060247 | 5/8/19 5:54 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.127459 | 6.70217E+12 | 0.0078999 | 0.2365757 | 3.127459 |
| 487 | 5838.51 | 575115 | 0.1055129 | 5/8/19 5:59 | 0.0172785 | 0.5174335 | 4.55475E+13 | 3.1123637 | 6.70217E+12 | 0.0157437 | 0.4714713 | 3.1123637 |
| 488 | 5829.09 | 575117 | 0.1054774 | 5/8/19 6:04 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1113164 | 6.70217E+12 | 0.015334 | 0.4592022 | 3.1113164 |
| 489 | 5826.85 | 575117 | 0.1054369 | 5/8/19 6:09 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1101208 | 6.70217E+12 | 0.0095667 | 0.2864908 | 3.1101208 |
| 490 | 5838.53 | 575118 | 0.105587 | 5/8/19 6:14 | 0.0211899 | 0.6345669 | 4.55157E+13 | 3.1145494 | 6.70217E+12 | 0.0126575 | 0.3790499 | 3.1145494 |
| 491 | 5843.74 | 575119 | 0.1054459 | 5/8/19 6:19 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1103869 | 6.70217E+12 | 0.0159603 | 0.4779578 | 3.1103869 |
| 492 | 5843.03 | 575119 | 0.1054331 | 5/8/19 6:24 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.110009 | 6.70217E+12 | 0.0169939 | 0.5089107 | 3.110009 |
| 493 | 5842.51 | 575119 | 0.1054237 | 5/8/19 6:29 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1097323 | 6.70217E+12 | 0.0176305 | 0.5279747 | 3.1097323 |
| 494 | 5859.77 | 575120 | 0.1055662 | 5/8/19 6:34 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1139353 | 6.70217E+12 | 0.0182108 | 0.5453528 | 3.1139353 |
| 495 | 5849.16 | 575120 | 0.1053751 | 5/8/19 6:39 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1082971 | 6.70217E+12 | 0.0222873 | 0.6674303 | 3.1082971 |
| 496 | 5859.91 | 575120 | 0.1055687 | 5/8/19 6:44 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1140097 | 6.70217E+12 | 0.0240313 | 0.7196573 | 3.1140097 |
| 497 | 5874.94 | 575120 | 0.1058395 | 5/8/19 6:49 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1219968 | 6.70217E+12 | 0.0247785 | 0.7420335 | 3.1219968 |
| 498 | 5849.77 | 575122 | 0.1058251 | 5/8/19 6:54 | 0.0211899 | 0.6345669 | 4.55007E+13 | 3.1215733 | 6.70217E+12 | 0.035146 | 1.0525055 | 3.1215733 |
| 499 | 5847.52 | 575123 | 0.1059851 | 5/8/19 6:59 | 0.0211899 | 0.6345669 | 4.54146E+13 | 3.1262913 | 6.70217E+12 | 0.0331317 | 0.992184 | 3.1262913 |
| 500 | 5858.74 | 575123 | 0.1061884 | 5/8/19 7:04 | 0.0245969 | 0.7365952 | 4.54146E+13 | 3.1322899 | 6.70217E+12 | 0.0225584 | 0.6755489 | 3.1322899 |
| 501 | 5868.24 | 575124 | 0.1046351 | 5/8/19 7:09 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0864695 | 6.70217E+12 | 0.0227738 | 0.6819994 | 3.0864695 |
| 502 | 5860.28 | 575124 | 0.1044931 | 5/8/19 7:14 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0822829 | 6.70217E+12 | 0.0189208 | 0.5666149 | 3.0822829 |
| 503 | 5864.03 | 575124 | 0.10456 | 5/8/19 7:19 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0842552 | 6.70217E+12 | 0.0206953 | 0.6197553 | 3.0842552 |
| 504 | 5860.24 | 575125 | 0.1049602 | 5/8/19 7:24 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0960609 | 6.70217E+12 | 0.0230157 | 0.6892435 | 3.0960609 |
| 505 | 5855.35 | 575125 | 0.1048726 | 5/8/19 7:29 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0934774 | 6.70217E+12 | 0.0225888 | 0.6764593 | 3.0934774 |
| 506 | 5861.24 | 575125 | 0.1049781 | 5/8/19 7:34 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0965892 | 6.70217E+12 | 0.0205788 | 0.6162665 | 3.0965892 |
| 507 | 5864.22 | 575125 | 0.1050315 | 5/8/19 7:39 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0981636 | 6.70217E+12 | 0.0197214 | 0.5905902 | 3.0981636 |
| 508 | 5855.4 | 575125 | 0.1048735 | 5/8/19 7:44 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0935039 | 6.70217E+12 | 0.0198359 | 0.5940191 | 3.0935039 |
| 509 | 5848.68 | 575126 | 0.102448 | 5/8/19 7:49 | 0.0245969 | 0.7365952 | 4.69919E+13 | 3.0219576 | 6.70217E+12 | 0.0296779 | 0.8887542 | 3.0219576 |
| 510 | 5843.55 | 575127 | 0.1024751 | 5/8/19 7:54 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0227572 | 6.70217E+12 | 0.0208223 | 0.6235585 | 3.0227572 |
| 511 | 5851.77 | 575127 | 0.1026193 | 5/8/19 7:59 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0270092 | 6.70217E+12 | 0.0203156 | 0.6892092 | 3.0270092 |

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BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 512 | 5849.49 | 575127 | 0.1025793 | 5/8/19 8:04 | 0.0242095 | 0.7249938 | 4.69382E+13 | 3.0258298 | 6.70217E+12 | 0.0232039 | 0.6948795 | 3.0258298 |
| 513 | 5849.48 | 575129 | 0.1024537 | 5/8/19 8:09 | 0.0242095 | 0.7249938 | 4.69957E+13 | 3.0212242 | 6.70217E+12 | 0.0190902 | 0.5962142 | 3.0221242 |
| 514 | 5848.2 | 575130 | 0.1023337 | 5/8/19 8:14 | 0.0242095 | 0.7249938 | 4.70405E+13 | 3.0185855 | 6.70217E+12 | 0.0193885 | 0.5806209 | 3.0185855 |
| 515 | 5833.78 | 575131 | 0.1018159 | 5/8/19 8:19 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0033105 | 6.70217E+12 | 0.0228642 | 0.6847066 | 3.0033105 |
| 516 | 5845.68 | 575131 | 0.1020236 | 5/8/19 8:24 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0094368 | 6.70217E+12 | 0.0197323 | 0.5909166 | 3.0094368 |
| 517 | 5850.11 | 575133 | 0.101054 | 5/8/19 8:29 | 0.0242095 | 0.7249938 | 4.76518E+13 | 2.9808362 | 6.70217E+12 | 0.0210194 | 0.629461 | 2.9808362 |
| 518 | 5849.94 | 575134 | 0.101143 | 5/8/19 8:34 | 0.0242095 | 0.7249938 | 4.76084E+13 | 2.9834634 | 6.70217E+12 | 0.0253845 | 0.7601812 | 2.9834634 |
| 519 | 5844.18 | 575135 | 0.1003625 | 5/8/19 8:39 | 0.0242095 | 0.7249938 | 4.79315E+13 | 2.9604385 | 6.70217E+12 | 0.02187378 | 0.5611347 | 2.9604385 |
| 520 | 5844.99 | 575136 | 0.1007176 | 5/8/19 8:45 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9709144 | 6.70217E+12 | 0.0201853 | 0.6044825 | 2.9709144 |
| 521 | 5856.45 | 575136 | 0.1009151 | 5/8/19 8:50 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9767393 | 6.70217E+12 | 0.0212258 | 0.635642 | 2.9767393 |
| 522 | 5861.07 | 575136 | 0.1009947 | 5/8/19 8:55 | 0.0242095 | 0.7249938 | 4.77691E+13 | 2.9790876 | 6.70217E+12 | 0.0203371 | 0.6090284 | 2.9790876 |
| 523 | 5859.02 | 575136 | 0.1009594 | 5/8/19 9:00 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9780456 | 6.70217E+12 | 0.0193291 | 0.5788421 | 2.9780456 |
| 524 | 5865.61 | 575136 | 0.1010729 | 5/8/19 9:05 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9813952 | 6.70217E+12 | 0.0272511 | 0.8160796 | 2.9813952 |
| 525 | 5854.26 | 575136 | 0.1008773 | 5/8/19 9:10 | 0.0244939 | 0.7335107 | 4.77691E+13 | 2.9756262 | 6.70217E+12 | 0.0236817 | 0.709188 | 2.9756262 |
| 526 | 5831.3 | 575137 | 0.1018101 | 5/8/19 9:15 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0031404 | 6.70217E+12 | 0.2149698 | 6.4376289 | 6.4376289 |
| 527 | 5839.16 | 575137 | 0.1019473 | 5/8/19 9:20 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0071883 | 6.70217E+12 | 0.2149291 | 6.4364101 | 6.4364101 |
| 528 | 5843.2 | 575137 | 0.1020179 | 5/8/19 9:25 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0092689 | 6.70217E+12 | 0.0275293 | 0.8244108 | 3.0092689 |
| 529 | 5841.15 | 575137 | 0.1019821 | 5/8/19 9:30 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0082132 | 6.70217E+12 | 0.0429576 | 1.2864369 | 3.0082132 |
| 530 | 5849.05 | 575139 | 0.1011946 | 5/8/19 9:35 | 0.0244939 | 0.7335107 | 4.7577E+13 | 2.9849829 | 6.70217E+12 | 0.0232529 | 0.6963468 | 2.9849829 |
| 531 | 5857.36 | 575140 | 0.0999202 | 5/8/19 9:40 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.947394 | 6.70217E+12 | 0.0229391 | 0.6869496 | 2.947394 |
| 532 | 5857.91 | 575140 | 0.0999296 | 5/8/19 9:45 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9476708 | 6.70217E+12 | 0.0235124 | 0.704118 | 2.9476708 |
| 533 | 5864.03 | 575140 | 0.1000304 | 5/8/19 9:50 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9507504 | 6.70217E+12 | 0.0259313 | 0.776556 | 2.9507504 |
| 534 | 5868.53 | 575142 | 0.0972217 | 5/8/19 9:55 | 0.0244939 | 0.7335107 | 4.96861E+13 | 2.8677931 | 6.70217E+12 | 0.0202099 | 0.6052191 | 2.8677931 |
| 535 | 5857.64 | 575143 | 0.0964425 | 5/8/19 10:00 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8448083 | 6.70217E+12 | 0.018816 | 0.5634765 | 2.8448083 |
| 536 | 5866.7 | 575143 | 0.0965916 | 5/8/19 10:05 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8492083 | 6.70217E+12 | 0.0166105 | 0.4974291 | 2.8492083 |
| 537 | 5863.82 | 575143 | 0.0965442 | 5/8/19 10:10 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8478096 | 6.70217E+12 | 0.0189675 | 0.5680134 | 2.8478096 |
| 538 | 5866.01 | 575143 | 0.0965803 | 5/8/19 10:15 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8488732 | 6.70217E+12 | 0.0207265 | 0.6206896 | 2.8488732 |
| 539 | 5864.99 | 575144 | 0.0934511 | 5/8/19 10:20 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7565705 | 6.70217E+12 | 0.0230154 | 0.6892345 | 2.7565705 |
| 540 | 5879.4 | 575144 | 0.0936807 | 5/8/19 10:25 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7633433 | 6.70217E+12 | 0.022665 | 0.6787412 | 2.7633433 |
| 541 | 5893.62 | 575144 | 0.0939073 | 5/8/19 10:30 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.7700267 | 6.70217E+12 | 0.026083 | 0.7810989 | 2.7700267 |
| 542 | 5896.01 | 575144 | 0.0939454 | 5/8/19 10:35 | 0.0273545 | 0.8191761 | 5.16596E+13 | 2.77115 | 6.70217E+12 | 0.0230839 | 0.6912859 | 2.77115 |
| 543 | 5888.01 | 575145 | 0.0946022 | 5/8/19 10:40 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.790525 | 6.70217E+12 | 0.0287548 | 0.8611104 | 2.790525 |
| 544 | 5881.26 | 575145 | 0.0944937 | 5/8/19 10:45 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.787326 | 6.70217E+12 | 0.0290496 | 0.8699387 | 2.787326 |
| 545 | 5890.78 | 575145 | 0.0946467 | 5/8/19 10:50 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.7918378 | 6.70217E+12 | 0.031648 | 0.9477521 | 2.7918378 |
| 546 | 5902.32 | 575145 | 0.0948321 | 5/8/19 10:55 | 0.0273545 | 0.8191761 | 5.12313E+13 | 2.797307 | 6.70217E+12 | 0.0386126 | 1.1563187 | 2.797307 |
| 547 | 5892.56 | 575146 | 0.0957691 | 5/8/19 11:01 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8249464 | 6.70217E+12 | 0.1850845 | 5.5426638 | 5.5426638 |
| 548 | 5892.8 | 575146 | 0.095773 | 5/8/19 11:06 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8250615 | 6.70217E+12 | 0.1223436 | 3.663783 | 3.663783 |
| 549 | 5886.97 | 575146 | 0.0956783 | 5/8/19 11:11 | 0.0256602 | 0.7684375 | 5.06462E+13 | 2.8222665 | 6.70217E+12 | 0.0289788 | 0.8678185 | 2.8222665 |
| 550 | 5886.09 | 575147 | 0.095016 | 5/8/19 11:16 | 0.0256602 | 0.7684375 | 5.09916E+13 | 2.8027303 | 6.70217E+12 | 0.0293671 | 0.8794468 | 2.8027303 |
| 551 | 5892.15 | 575147 | 0.0951138 | 5/8/19 11:21 | 0.0256602 | 0.7684375 | 5.09916E+13 | 2.8056159 | 6.70217E+12 | 0.0222423 | 0.6660827 | 2.8056159 |
| 552 | 5876.44 | 575148 | 0.0951515 | 5/8/19 11:26 | 0.0256602 | 0.7684375 | 5.08355E+13 | 2.8067268 | 6.70217E+12 | 0.0207227 | 0.6205758 | 2.8067268 |
| 553 | 5884.06 | 575149 | 0.0955244 | 5/8/19 11:31 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.8177282 | 6.70217E+12 | 0.0191584 | 0.5737302 | 2.8177282 |
| 554 | 5888.27 | 575149 | 0.0955928 | 5/8/19 11:36 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.8197442 | 6.70217E+12 | 0.0213724 | 0.6400321 | 2.8197442 |
| 555 | 5886.01 | 575149 | 0.0955561 | 5/8/19 11:41 | 0.0256602 | 0.7684375 | 5.07027E+13 | 2.818662 | 6.70217E+12 | 0.0222172 | 0.6653311 | 2.818662 |
| 556 | 5884.57 | 575150 | 0.0935906 | 5/8/19 11:46 | 0.0256602 | 0.7684375 | 5.17548E+13 | 2.7608856 | 6.70217E+12 | 0.0230647 | 0.6907109 | 2.7608856 |
| 557 | 5889.82 | 575150 | 0.0936741 | 5/8/19 11:51 | 0.0256602 | 0.7684375 | 5.17548E+13 | 2.7631486 | 6.70217E+12 | 0.0228225 | 0.6834578 | 2.7631486 |
| 558 | 5888.19 | 575151 | 0.0945307 | 5/8/19 11:56 | 0.0256602 | 0.7684375 | 5.12716E+13 | 2.7884168 | 6.70217E+12 | 0.0233477 | 0.6991858 | 2.7884168 |
| 559 | 5872.61 | 575151 | 0.0942806 | 5/8/19 12:01 | 0.026371 | 0.7897235 | 5.12716E+13 | 2.7810387 | 6.70217E+12 | 0.0224703 | 0.6729106 | 2.7810387 |
| 560 | 5867.29 | 575152 | 0.0946705 | 5/8/19 12:06 | 0.026371 | 0.7897235 | 5.10142E+13 | 2.7925413 | 6.70217E+12 | 0.0217427 | 0.6511214 | 2.7925413 |
| 561 | 5863.69 | 575152 | 0.0946125 | 5/8/19 12:11 | 0.026371 | 0.7897235 | 5.10142E+13 | 2.7908278 | 6.70217E+12 | 0.0206502 | 0.6184047 | 2.7908278 |
| 562 | 5866.61 | 575153 | 0.0947421 | 5/8/19 12:16 | 0.026371 | 0.7897235 | 5.09698E+13 | 2.7946505 | 6.70217E+12 | 0.0211696 | 0.633959 | 2.7946505 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 563 | 5868.73 | 575154 | 0.0943442 | 5/8/19 12:21 | 0.026371 | 0.7897235 | 5.12032E+13 | 2.7829139 | 6.70217E+12 | 0.0227271 | 0.6806009 | 2.7829139 |
| 564 | 5877.65 | 575154 | 0.0944876 | 5/8/19 12:26 | 0.026371 | 0.7897235 | 5.12032E+13 | 2.7871437 | 6.70217E+12 | 0.0262613 | 0.7864384 | 2.7871437 |
| 565 | 5886.52 | 575156 | 0.0934827 | 5/8/19 12:31 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7575042 | 6.70217E+12 | 0.0246938 | 0.7395042 | 2.7575042 |
| 566 | 5883.25 | 575156 | 0.0934308 | 5/8/19 12:36 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7559724 | 6.70217E+12 | 0.0239477 | 0.7171538 | 2.7559724 |
| 567 | 5880.8 | 575156 | 0.0933319 | 5/8/19 12:41 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7548247 | 6.70217E+12 | 0.0215346 | 0.6448895 | 2.7548247 |
| 568 | 5886.84 | 575157 | 0.0931778 | 5/8/19 12:46 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7485095 | 6.70217E+12 | 0.0215175 | 0.6443774 | 2.7485095 |
| 569 | 5887.77 | 575157 | 0.0931925 | 5/8/19 12:51 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7489437 | 6.70217E+12 | 0.0210953 | 0.6317339 | 2.7489437 |
| 570 | 5886.14 | 575159 | 0.0936745 | 5/8/19 12:56 | 0.026371 | 0.7897235 | 5.17223E+13 | 2.7631598 | 6.70217E+12 | 0.0221968 | 0.6647202 | 2.7631598 |
| 571 | 5880.23 | 575159 | 0.0935804 | 5/8/19 13:01 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7603855 | 6.70217E+12 | 0.0220558 | 0.6604977 | 2.7603855 |
| 572 | 5884.79 | 575159 | 0.093653 | 5/8/19 13:06 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7625261 | 6.70217E+12 | 0.0232481 | 0.6962031 | 2.7625261 |
| 573 | 5887.12 | 575159 | 0.0936901 | 5/8/19 13:11 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7636199 | 6.70217E+12 | 0.0228614 | 0.6846227 | 2.7636199 |
| 574 | 5882.83 | 575159 | 0.0936218 | 5/8/19 13:16 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.761606 | 6.70217E+12 | 0.0286842 | 0.8589962 | 2.761606 |
| 575 | 5887.05 | 575160 | 0.095298 | 5/8/19 13:21 | 0.0224056 | 0.670973 | 5.0849E+13 | 2.8110496 | 6.70217E+12 | 0.0210217 | 0.6295298 | 2.8110496 |
| 576 | 5885.01 | 575161 | 0.0954767 | 5/8/19 13:26 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8163217 | 6.70217E+12 | 0.0209618 | 0.627736 | 2.8163217 |
| 577 | 5877.03 | 575161 | 0.0953473 | 5/8/19 13:31 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8125028 | 6.70217E+12 | 0.019652 | 0.5885119 | 2.8125028 |
| 578 | 5864.5 | 575163 | 0.0928787 | 5/8/19 13:36 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7936868 | 6.70217E+12 | 0.0197032 | 0.5900452 | 2.7936868 |
| 579 | 5878.37 | 575163 | 0.0930984 | 5/8/19 13:41 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7461664 | 6.70217E+12 | 0.0229336 | 0.6867849 | 2.7461664 |
| 580 | 5884.42 | 575163 | 0.0931942 | 5/8/19 13:46 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7489927 | 6.70217E+12 | 0.027902 | 0.8355719 | 2.7489927 |
| 581 | 5882.28 | 575163 | 0.0931603 | 5/8/19 13:51 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.747993 | 6.70217E+12 | 0.0286405 | 0.8576875 | 2.747993 |
| 582 | 5884.83 | 575163 | 0.0932007 | 5/8/19 13:56 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7491843 | 6.70217E+12 | 0.0262751 | 0.7868517 | 2.7491843 |
| 583 | 5884.52 | 575164 | 0.0946934 | 5/8/19 14:01 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.793214 | 6.70217E+12 | 0.027166 | 0.8135311 | 2.793214 |
| 584 | 5879.67 | 575164 | 0.0946153 | 5/8/19 14:06 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7909119 | 6.70217E+12 | 0.0243166 | 0.7282011 | 2.7909119 |
| 585 | 5877.49 | 575164 | 0.0945802 | 5/8/19 14:11 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7898771 | 6.70217E+12 | 0.0208701 | 0.6249899 | 2.7898771 |
| 586 | 5887.28 | 575166 | 0.0950829 | 5/8/19 14:16 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8047039 | 6.70217E+12 | 0.0218292 | 0.6537118 | 2.8047039 |
| 587 | 5884.05 | 575166 | 0.0950307 | 5/8/19 14:21 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8031651 | 6.70217E+12 | 0.0217633 | 0.6517383 | 2.8031651 |
| 588 | 5885.12 | 575166 | 0.095048 | 5/8/19 14:26 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8036749 | 6.70217E+12 | 0.0217781 | 0.6521815 | 2.8036749 |
| 589 | 5902.91 | 575167 | 0.0961455 | 5/8/19 14:31 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.836049 | 6.70217E+12 | 0.021451 | 0.6423859 | 2.836049 |
| 590 | 5902.72 | 575167 | 0.0961424 | 5/8/19 14:36 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8359577 | 6.70217E+12 | 0.1801174 | 5.3939157 | 5.3939157 |
| 591 | 5906.61 | 575167 | 0.0962058 | 5/8/19 14:41 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8378267 | 6.70217E+12 | 0.0426523 | 1.2772942 | 2.8378267 |
| 592 | 5912.28 | 575167 | 0.0962981 | 5/8/19 14:46 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8405508 | 6.70217E+12 | 0.1999116 | 5.986686 | 5.986686 |
| 593 | 5908.65 | 575170 | 0.095031 | 5/8/19 14:51 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.8031727 | 6.70217E+12 | 0.2670565 | 7.997452 | 7.997452 |
| 594 | 5900.02 | 575170 | 0.0948922 | 5/8/19 14:56 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.7990785 | 6.70217E+12 | 0.0299601 | 0.8972051 | 2.7990785 |
| 595 | 5884.23 | 575171 | 0.0950701 | 5/8/19 15:01 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8043263 | 6.70217E+12 | 0.0297971 | 0.8923238 | 2.8043263 |
| 596 | 5890.02 | 575171 | 0.0951636 | 5/8/19 15:06 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8070857 | 6.70217E+12 | 0.0254303 | 0.7615527 | 2.8070857 |
| 597 | 5890.65 | 575171 | 0.0951738 | 5/8/19 15:11 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8073859 | 6.70217E+12 | 0.0264722 | 0.7927541 | 2.8073859 |
| 598 | 5868.34 | 575171 | 0.0948133 | 5/8/19 15:16 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.7967533 | 6.70217E+12 | 0.0232906 | 0.6974758 | 2.7967533 |
| 599 | 5883.01 | 575172 | 0.0962041 | 5/8/19 15:21 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.8377777 | 6.70217E+12 | 0.0222239 | 0.6655317 | 2.8377777 |
| 600 | 5877.22 | 575172 | 0.0961094 | 5/8/19 15:26 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.8349841 | 6.70217E+12 | 0.021497 | 0.6437635 | 2.8349841 |
| 601 | 5882.35 | 575173 | 0.0955836 | 5/8/19 15:31 | 0.0170556 | 0.5107584 | 5.06566E+13 | 2.8194728 | 6.70217E+12 | 0.0233908 | 0.7004765 | 2.8194728 |
| 602 | 5895.23 | 575174 | 0.0960485 | 5/8/19 15:36 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8331879 | 6.70217E+12 | 0.0260191 | 0.7791853 | 2.8331879 |
| 603 | 5891.02 | 575174 | 0.0959799 | 5/8/19 15:41 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8311646 | 6.70217E+12 | 0.0204508 | 0.6124333 | 2.8311646 |
| 604 | 5895.3 | 575174 | 0.0960497 | 5/8/19 15:46 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8332215 | 6.70217E+12 | 0.0203869 | 0.6105197 | 2.8332215 |
| 605 | 5898.69 | 575174 | 0.0961049 | 5/8/19 15:51 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8348507 | 6.70217E+12 | 0.0210614 | 0.6307187 | 2.8348507 |
| 606 | 5898.34 | 575175 | 0.0970802 | 5/8/19 15:56 | 0.0170556 | 0.5107584 | 5.00112E+13 | 2.863621 | 6.70217E+12 | 0.0209194 | 0.6264663 | 2.863621 |
| 607 | 5900.14 | 575176 | 0.0971661 | 5/8/19 16:01 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8661537 | 6.70217E+12 | 0.0209977 | 0.6288111 | 2.8661537 |
| 608 | 5891.31 | 575176 | 0.0970702 | 5/8/19 16:06 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8618643 | 6.70217E+12 | 0.0203367 | 0.6090164 | 2.8618643 |
| 609 | 5893.65 | 575176 | 0.0970592 | 5/8/19 16:11 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.863001 | 6.70217E+12 | 0.0213506 | 0.6393793 | 2.863001 |
| 610 | 5892.53 | 575177 | 0.0969298 | 5/8/19 16:16 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8591849 | 6.70217E+12 | 0.0261533 | 0.7832042 | 2.8591849 |
| 611 | 5894.16 | 575177 | 0.0969567 | 5/8/19 16:21 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8599758 | 6.70217E+12 | 0.0215949 | 0.7744987 | 2.8599758 |
| 612 | 5895.84 | 575178 | 0.097646 | 5/8/19 16:26 | 0.0174326 | 0.5220483 | 4.97004E+13 | 2.88031 | 6.70217E+12 | 0.0215949 | 0.6466953 | 2.88031 |
| 613 | 5896.89 | 575179 | 0.0980892 | 5/8/19 16:31 | 0.0174326 | 0.5220483 | 4.94846E+13 | 2.8933819 | 6.70217E+12 | 0.0198411 | 0.5941748 | 2.8933819 |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|----------------------|------------|--------------|---------------|---------------|---------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP | real_time_LMP | realized_rev |
| 614 | 5902.19 | 575180 | 0.0983841 | 5/8/19 16:36 | 0.0174326 | 0.5220483 | 2.9020809 | 6.70217E+12 | 0.0207134 | 0.0207134 | 0.6202973 | 2.9020809 |
| 615 | 5905.9 | 575181 | 0.097534 | 5/8/19 16:41 | 0.0174326 | 0.5220483 | 2.8770052 | 6.70217E+12 | 0.0223016 | 0.0223016 | 0.6678586 | 2.8770052 |
| 616 | 5906.84 | 575181 | 0.0975495 | 5/8/19 16:46 | 0.0174326 | 0.5220483 | 2.8774631 | 6.70217E+12 | 0.0254538 | 0.0254538 | 0.7622565 | 2.8774631 |
| 617 | 5904.42 | 575181 | 0.0975095 | 5/8/19 16:51 | 0.0174326 | 0.5220483 | 2.8762842 | 6.70217E+12 | 0.025079 | 0.025079 | 0.7510325 | 2.8762842 |
| 618 | 5903.02 | 575181 | 0.0974864 | 5/8/19 16:56 | 0.0174326 | 0.5220483 | 2.8756022 | 6.70217E+12 | 0.0246071 | 0.0246071 | 0.7369006 | 2.8756022 |
| 619 | 5894.63 | 575182 | 0.0989154 | 5/8/19 17:01 | 0.0174032 | 0.5211678 | 2.917544 | 6.70217E+12 | 0.0226389 | 0.0226389 | 0.6779596 | 2.917544 |
| 620 | 5898.06 | 575182 | 0.098973 | 5/8/19 17:06 | 0.0174032 | 0.5211678 | 2.9194522 | 6.70217E+12 | 0.0256642 | 0.0256642 | 0.7685572 | 2.9194522 |
| 621 | 5891.22 | 575182 | 0.0988582 | 5/8/19 17:11 | 0.0174032 | 0.5211678 | 2.9160665 | 6.70217E+12 | 0.0384273 | 0.0384273 | 1.1507695 | 2.9160665 |
| 622 | 5888.49 | 575182 | 0.0988124 | 5/8/19 17:16 | 0.0174032 | 0.5211678 | 2.9147151 | 6.70217E+12 | 0.0364449 | 0.0364449 | 1.0914033 | 2.9147151 |
| 623 | 5895.57 | 575183 | 0.0996828 | 5/8/19 17:21 | 0.0174032 | 0.5211678 | 2.9403898 | 6.70217E+12 | 0.0191003 | 0.0191003 | 0.5719903 | 2.9403898 |
| 624 | 5896.91 | 575183 | 0.0997054 | 5/8/19 17:26 | 0.0174032 | 0.5211678 | 2.9410582 | 6.70217E+12 | 0.0230176 | 0.0230176 | 0.6893004 | 2.9410582 |
| 625 | 5918.72 | 575183 | 0.1000742 | 5/8/19 17:31 | 0.0174032 | 0.5211678 | 2.9519358 | 6.70217E+12 | 0.0030289 | 0.0030289 | 0.0907055 | 2.9519358 |
| 626 | 5926.18 | 575183 | 0.1002003 | 5/8/19 17:36 | 0.0174032 | 0.5211678 | 2.9556564 | 6.70217E+12 | 0.0439309 | 0.0439309 | 1.315584 | 2.9556564 |
| 627 | 5934.97 | 575183 | 0.100349 | 5/8/19 17:41 | 0.0174032 | 0.5211678 | 2.9600404 | 6.70217E+12 | 0.0408583 | 0.0408583 | 1.2235699 | 2.9600404 |
| 628 | 5944.99 | 575185 | 0.100551 | 5/8/19 17:46 | 0.0174032 | 0.5211678 | 2.9659989 | 6.70217E+12 | 0.0170991 | 0.0170991 | 0.512061 | 2.9659989 |
| 629 | 5940.01 | 575185 | 0.1004667 | 5/8/19 17:51 | 0.0174032 | 0.5211678 | 2.9635144 | 6.70217E+12 | 0.0183967 | 0.0183967 | 0.5509198 | 2.9635144 |
| 630 | 5931.52 | 575186 | 0.1008871 | 5/8/19 17:56 | 0.0174032 | 0.5211678 | 2.9759139 | 6.70217E+12 | 0.0163528 | 0.0163528 | 0.4897119 | 2.9759139 |
| 631 | 5938.6 | 575188 | 0.0986457 | 5/8/19 18:01 | 0.0165475 | 0.4955425 | 2.9097985 | 6.70217E+12 | 0.0185884 | 0.0185884 | 0.5566606 | 2.9097985 |
| 632 | 5931.02 | 575189 | 0.0980181 | 5/8/19 18:06 | 0.0165475 | 0.4955425 | 2.8912849 | 6.70217E+12 | 0.0173413 | 0.0173413 | 0.5193141 | 2.8912849 |
| 633 | 5928.19 | 575189 | 0.0979713 | 5/8/19 18:12 | 0.0165475 | 0.4955425 | 2.8899053 | 6.70217E+12 | 0.0187899 | 0.0187899 | 0.5626949 | 2.8899053 |
| 634 | 5932.23 | 575189 | 0.0980381 | 5/8/19 18:17 | 0.0165475 | 0.4955425 | 2.8918748 | 6.70217E+12 | 0.0180684 | 0.0180684 | 0.5410884 | 2.8918748 |
| 635 | 5931.78 | 575189 | 0.0980306 | 5/8/19 18:22 | 0.0165475 | 0.4955425 | 2.8916554 | 6.70217E+12 | 0.0164812 | 0.0164812 | 0.493557 | 2.8916554 |
| 636 | 5964.15 | 575189 | 0.0985656 | 5/8/19 18:27 | 0.0165475 | 0.4955425 | 2.9074353 | 6.70217E+12 | 0.0180238 | 0.0180238 | 0.5397527 | 2.9074353 |
| 637 | 5899.89 | 575189 | 0.0975036 | 5/8/19 18:32 | 0.0165475 | 0.4955425 | 2.8761095 | 6.70217E+12 | 0.0168118 | 0.0168118 | 0.5034574 | 2.8761095 |
| 638 | 5931.45 | 575190 | 0.1008336 | 5/8/19 18:37 | 0.0165475 | 0.4955425 | 2.9743362 | 6.70217E+12 | 0.0122315 | 0.0122315 | 0.3662927 | 2.9743362 |
| 639 | 5929.97 | 575190 | 0.1008085 | 5/8/19 18:42 | 0.0165475 | 0.4955425 | 2.973594 | 6.70217E+12 | 0.0162317 | 0.0162317 | 0.4860853 | 2.973594 |
| 640 | 5923.2 | 575191 | 0.0994527 | 5/8/19 18:47 | 0.0165475 | 0.4955425 | 2.9336031 | 6.70217E+12 | 0.0090855 | 0.0090855 | 0.2720804 | 2.9336031 |
| 641 | 5934.99 | 575192 | 0.0992547 | 5/8/19 18:52 | 0.0165475 | 0.4955425 | 2.9277617 | 6.70217E+12 | 0.0122121 | 0.0122121 | 0.3657117 | 2.9277617 |
| 642 | 5940.66 | 575194 | 0.0989022 | 5/8/19 18:57 | 0.0165475 | 0.494421E+13 | 2.9173636 | 6.70217E+12 | 0.0091815 | 0.0091815 | 0.2749553 | 2.9173636 |
| 643 | 5948.18 | 575194 | 0.0990274 | 5/8/19 19:02 | 0.0158704 | 0.4752656 | 2.9210566 | 6.70217E+12 | 0.0137605 | 0.0137605 | 0.4120811 | 2.9210566 |
| 644 | 5964.98 | 575194 | 0.0993071 | 5/8/19 19:07 | 0.0158704 | 0.4752656 | 2.9293068 | 6.70217E+12 | 0.0152734 | 0.0152734 | 0.4573874 | 2.9293068 |
| 645 | 5960.1 | 575194 | 0.0992258 | 5/8/19 19:12 | 0.0158704 | 0.4752656 | 2.9269103 | 6.70217E+12 | 0.0109359 | 0.0109359 | 0.3274938 | 2.9269103 |
| 646 | 5946.01 | 575194 | 0.0989912 | 5/8/19 19:17 | 0.0158704 | 0.4752656 | 2.9199909 | 6.70217E+12 | 0.0150092 | 0.0150092 | 0.4494755 | 2.9199909 |
| 647 | 5937.16 | 575194 | 0.0988439 | 5/8/19 19:22 | 0.0158704 | 0.4752656 | 2.9156448 | 6.70217E+12 | 0.0154969 | 0.0154969 | 0.4640805 | 2.9156448 |
| 648 | 5955.08 | 575194 | 0.0991422 | 5/8/19 19:27 | 0.0158704 | 0.4752656 | 2.9244451 | 6.70217E+12 | 0.0152611 | 0.0152611 | 0.4570191 | 2.9244451 |
| 649 | 5957.68 | 575195 | 0.1010248 | 5/8/19 19:32 | 0.0158704 | 0.4752656 | 2.979976 | 6.70217E+12 | 0.0228461 | 0.0228461 | 0.6841645 | 2.979976 |
| 650 | 5962.91 | 575195 | 0.1011084 | 5/8/19 19:37 | 0.0158704 | 0.4752656 | 2.9824418 | 6.70217E+12 | 0.0165428 | 0.0165428 | 0.4954017 | 2.9824418 |
| 651 | 5956.59 | 575195 | 0.1010012 | 5/8/19 19:42 | 0.0158704 | 0.4752656 | 2.9792807 | 6.70217E+12 | 0.0163774 | 0.0163774 | 0.4904485 | 2.9792807 |
| 652 | 5957.7 | 575195 | 0.1010201 | 5/8/19 19:47 | 0.0158704 | 0.4752656 | 2.9798359 | 6.70217E+12 | 0.0147872 | 0.0147872 | 0.4428273 | 2.9798359 |
| 653 | 5969.98 | 575195 | 0.1012283 | 5/8/19 19:52 | 0.0158704 | 0.4752656 | 2.985978 | 6.70217E+12 | 0.0161979 | 0.0161979 | 0.4850731 | 2.985978 |
| 654 | 5987.65 | 575195 | 0.1015279 | 5/8/19 19:57 | 0.0158704 | 0.4752656 | 2.9948159 | 6.70217E+12 | 0.0140256 | 0.0140256 | 0.42002 | 2.9948159 |
| 655 | 6036.6 | 575195 | 0.1023379 | 5/8/19 20:02 | 0.013261 | 0.3971227 | 3.019299 | 6.70217E+12 | 0.0154454 | 0.0154454 | 0.4625382 | 3.019299 |
| 656 | 6037.49 | 575196 | 0.1050403 | 5/8/19 20:07 | 0.013261 | 0.3971227 | 3.0984226 | 6.70217E+12 | 0.0157078 | 0.0157078 | 0.4703963 | 3.0984226 |
| 657 | 6092.47 | 575196 | 0.1059968 | 5/8/19 20:12 | 0.013261 | 0.3971227 | 3.1266382 | 6.70217E+12 | 0.0215321 | 0.0215321 | 0.6448146 | 3.1266382 |
| 658 | 6052.38 | 575196 | 0.1052994 | 5/8/19 20:17 | 0.013261 | 0.3971227 | 3.1060641 | 6.70217E+12 | 0.018557 | 0.018557 | 0.5557203 | 3.1060641 |
| 659 | 6053.32 | 575199 | 0.1035905 | 5/8/19 20:22 | 0.013261 | 0.3971227 | 3.0556586 | 6.70217E+12 | 0.0163585 | 0.0163585 | 0.4898825 | 3.0556586 |
| 660 | 6041.03 | 575200 | 0.1032464 | 5/8/19 20:27 | 0.013261 | 0.3971227 | 3.0455058 | 6.70217E+12 | 0.0188459 | 0.0188459 | 0.5643719 | 3.0455058 |
| 661 | 6030.66 | 575202 | 0.1032473 | 5/8/19 20:32 | 0.013261 | 0.3971227 | 3.0455341 | 6.70217E+12 | 0.0134602 | 0.0134602 | 0.4030881 | 3.0455341 |
| 662 | 6043.34 | 575204 | 0.1032455 | 5/8/19 20:37 | 0.013261 | 0.3971227 | 3.0454809 | 6.70217E+12 | 0.0164743 | 0.0164743 | 0.4933504 | 3.0454809 |
| 663 | 6042.19 | 575204 | 0.1032259 | 5/8/19 20:42 | 0.013261 | 0.3971227 | 3.0449014 | 6.70217E+12 | 0.0147002 | 0.0147002 | 0.440222 | 3.0449014 |
| 664 | 6049.96 | 575204 | 0.1033586 | 5/8/19 20:47 | 0.013261 | 0.3971227 | 3.0488817 | 6.70217E+12 | 0.0148678 | 0.0148678 | 0.4452411 | 3.0488817 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 665 | 6051.76 | 575205 | 0.1040715 | 5/8/19 20:52 | 0.013261 | 0.3971227 | 4.7865E+13 | 3.0698443 | 6.70217E+12 | 0.0130545 | 0.3909388 | 3.0698443 |
| 666 | 6054.77 | 575206 | 0.1045618 | 5/8/19 20:57 | 0.013261 | 0.3971227 | 4.76643E+13 | 3.084309 | 6.70217E+12 | 0.0122348 | 0.3663915 | 3.084309 |
| 667 | 6045.31 | 575207 | 0.1043985 | 5/8/19 21:02 | 0.0057558 | 0.172367 | 4.76643E+13 | 3.0794901 | 6.70217E+12 | 0.0113115 | 0.3387417 | 3.0794901 |
| 668 | 6042.99 | 575207 | 0.1043195 | 5/8/19 21:07 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0771614 | 6.70217E+12 | 0.0064092 | 0.1919342 | 3.0771614 |
| 669 | 6038.47 | 575207 | 0.1042415 | 5/8/19 21:12 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0748598 | 6.70217E+12 | 0.0050076 | 0.1499609 | 3.0748598 |
| 670 | 6046.62 | 575207 | 0.1043822 | 5/8/19 21:17 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0790099 | 6.70217E+12 | -0.0026668 | -0.0798618 | 3.0790099 |
| 671 | 6044.8 | 575207 | 0.1043508 | 5/8/19 21:22 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0780831 | 6.70217E+12 | 0.0105849 | 0.3169825 | 3.0780831 |
| 672 | 6048.33 | 575207 | 0.1044117 | 5/8/19 21:27 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0798806 | 6.70217E+12 | 0.0086089 | 0.2578079 | 3.0798806 |
| 673 | 6052.87 | 575208 | 0.1057954 | 5/8/19 21:32 | 0.0057558 | 0.172367 | 4.70937E+13 | 3.1206959 | 6.70217E+12 | 0.0018 | 0.053904 | 3.1206959 |
| 674 | 6056.61 | 575210 | 0.1055202 | 5/8/19 21:37 | 0.0057558 | 0.172367 | 4.72457E+13 | 3.1125773 | 6.70217E+12 | -0.0021614 | -0.0647267 | 3.1125773 |
| 675 | 6049.99 | 575212 | 0.0995054 | 5/8/19 21:42 | 0.0057558 | 0.172367 | 5.01295E+13 | 2.9351584 | 6.70217E+12 | 0.0034416 | -0.1030644 | 2.9351584 |
| 676 | 6059.69 | 575213 | 0.0988159 | 5/8/19 21:47 | 0.0057558 | 0.172367 | 5.03935E+13 | 2.9148188 | 6.70217E+12 | -0.0015146 | -0.0453572 | 2.9148188 |
| 677 | 6056.42 | 575214 | 0.0996142 | 5/8/19 21:52 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9383674 | 6.70217E+12 | -0.0023178 | -0.0694104 | 2.9383674 |
| 678 | 6045.27 | 575214 | 0.0994308 | 5/8/19 21:57 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9329578 | 6.70217E+12 | 0.0029429 | 0.08813 | 2.9329578 |
| 679 | 6041.19 | 575214 | 0.0993637 | 5/8/19 22:02 | -0.0039885 | -0.1194423 | 5.00453E+13 | 2.9309783 | 6.70217E+12 | 0.0028846 | 0.0863842 | 2.9309783 |
| 680 | 6033.23 | 575215 | 0.0986577 | 5/8/19 22:07 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9101535 | 6.70217E+12 | -0.0021717 | -0.0650352 | 2.9101535 |
| 681 | 6034.99 | 575215 | 0.0986865 | 5/8/19 22:12 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9110025 | 6.70217E+12 | 0.0094236 | 0.282054 | 2.9110025 |
| 682 | 6042.83 | 575215 | 0.0988147 | 5/8/19 22:17 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9147841 | 6.70217E+12 | -0.0117128 | -0.3507593 | 2.9147841 |
| 683 | 6033.48 | 575216 | 0.0981874 | 5/8/19 22:22 | -0.0039885 | -0.1194423 | 5.05802E+13 | 2.8962791 | 6.70217E+12 | -0.0071632 | -0.214514 | 2.8962791 |
| 684 | 6028.01 | 575217 | 0.0985494 | 5/8/19 22:27 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9069577 | 6.70217E+12 | -0.0043047 | -0.1289114 | 2.9069577 |
| 685 | 6027.43 | 575217 | 0.0985399 | 5/8/19 22:32 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.906678 | 6.70217E+12 | -0.0026014 | -0.0779033 | 2.906678 |
| 686 | 6029.94 | 575217 | 0.098581 | 5/8/19 22:37 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9078884 | 6.70217E+12 | -0.0017683 | -0.0529547 | 2.9078884 |
| 687 | 6039.16 | 575219 | 0.0983331 | 5/8/19 22:42 | -0.0039885 | -0.1194423 | 5.05528E+13 | 2.9005763 | 6.70217E+12 | -0.0018002 | -0.05391 | 2.9005763 |
| 688 | 6039.06 | 575221 | 0.0975716 | 5/8/19 22:47 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.8781157 | 6.70217E+12 | 0.0035525 | 0.1063855 | 2.8781157 |
| 689 | 6035.97 | 575221 | 0.0975217 | 5/8/19 22:52 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.876643 | 6.70217E+12 | -0.0028608 | -0.0856714 | 2.876643 |
| 690 | 6041.91 | 575222 | 0.0971742 | 5/8/19 22:57 | -0.0039885 | -0.1194423 | 5.1179E+13 | 2.8663937 | 6.70217E+12 | -0.0044334 | -0.1327656 | 2.8663937 |
| 691 | 6066.64 | 575224 | 0.1014592 | 5/9/19 0:02 | -0.0060127 | -0.1800603 | 4.92181E+13 | 2.9927906 | 6.70217E+12 | -0.0145142 | -0.4346519 | 2.9927906 |
| 692 | 6072.36 | 575225 | 0.1021048 | 5/9/19 0:07 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0118316 | 6.70217E+12 | -0.0130235 | -0.3900104 | 3.0118316 |
| 693 | 6068.07 | 575225 | 0.1020326 | 5/9/19 0:12 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0097038 | 6.70217E+12 | -0.0286682 | -0.858517 | 3.0097038 |
| 694 | 6076.08 | 575225 | 0.1021673 | 5/9/19 0:17 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0136767 | 6.70217E+12 | -0.0231556 | -0.693433 | 3.0136767 |
| 695 | 6077.05 | 575225 | 0.1021836 | 5/9/19 0:22 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.014578 | 6.70217E+12 | -0.0015472 | -0.0463335 | 3.014578 |
| 696 | 6056.56 | 575225 | 0.1018391 | 5/9/19 0:27 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.003995 | 6.70217E+12 | -0.0012057 | -0.0361067 | 3.003995 |
| 697 | 6053.34 | 575225 | 0.1017849 | 5/9/19 0:37 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0023979 | 6.70217E+12 | -0.0181456 | -0.5434002 | 3.0023979 |
| 698 | 6047.02 | 575227 | 0.1035951 | 5/9/19 0:42 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0557938 | 6.70217E+12 | -0.0191353 | -0.5730385 | 3.0557938 |
| 699 | 6061.52 | 575227 | 0.1038435 | 5/9/19 0:47 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0631212 | 6.70217E+12 | -0.0107209 | -0.3210552 | 3.0631212 |
| 700 | 6050.01 | 575229 | 0.103384 | 5/9/19 0:52 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0495651 | 6.70217E+12 | 0.0299497 | 0.0495651 | 3.0495651 |
| 701 | 6044.15 | 575229 | 0.1032838 | 5/9/19 0:57 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0466114 | 6.70217E+12 | -0.0040798 | -0.1221764 | 3.0466114 |
| 702 | 6044.76 | 575229 | 0.1032943 | 5/9/19 1:02 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0469188 | 6.70217E+12 | -0.0033111 | -0.0991564 | 3.0469188 |
| 703 | 6039.56 | 575229 | 0.1032054 | 5/9/19 1:07 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0442977 | 6.70217E+12 | -0.0031204 | -0.0934456 | 3.0442977 |
| 704 | 6042.9 | 575231 | 0.1030119 | 5/9/19 1:12 | -0.0084514 | -0.2530913 | 4.82866E+13 | 3.0385906 | 6.70217E+12 | -0.0012951 | -0.0387839 | 3.0385906 |
| 705 | 6042.77 | 575231 | 0.1030817 | 5/9/19 1:17 | -0.0084514 | -0.2530913 | 4.82528E+13 | 3.0406489 | 6.70217E+12 | -0.0005672 | -0.0169857 | 3.0406489 |
| 706 | 6053.94 | 575233 | 0.1033545 | 5/9/19 1:22 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0486951 | 6.70217E+12 | -0.0121807 | -0.3647714 | 3.0486951 |
| 707 | 6056.93 | 575233 | 0.1034055 | 5/9/19 1:27 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0502008 | 6.70217E+12 | -0.0149888 | -0.4488646 | 3.0502008 |
| 708 | 6055.69 | 575233 | 0.1033843 | 5/9/19 1:32 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0495763 | 6.70217E+12 | -0.0147726 | -0.4423901 | 3.0495763 |
| 709 | 6058.16 | 575233 | 0.1034265 | 5/9/19 1:37 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0508202 | 6.70217E+12 | -0.0157309 | -0.471088 | 3.0508202 |
| 710 | 6059.3 | 575234 | 0.1038084 | 5/9/19 1:42 | -0.0084514 | -0.2530913 | 4.80461E+13 | 3.0620845 | 6.70217E+12 | -0.0227758 | -0.6820593 | 3.0620845 |
| 711 | 6061.34 | 575235 | 0.1031342 | 5/9/19 1:47 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0421965 | 6.70217E+12 | -0.0265233 | -0.7942844 | 3.0421965 |
| 712 | 6073.89 | 575235 | 0.1033477 | 5/9/19 1:52 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0484953 | 6.70217E+12 | -0.0258125 | -0.7729983 | 3.0484953 |
| 713 | 6070.6 | 575236 | 0.1036534 | 5/9/19 1:57 | -0.0084514 | -0.2530913 | 4.82077E+13 | 3.0575115 | 6.70217E+12 | -0.0270166 | -0.8090571 | 3.0575115 |
| 714 | 6070.34 | 575237 | 0.1039744 | 5/9/19 2:02 | -0.009959 | -0.2982389 | 4.80568E+13 | 3.0669809 | 6.70217E+12 | -0.0241909 | -0.7244368 | 3.0669809 |
| 715 | 6070.64 | 575238 | 0.1033994 | 5/9/19 2:07 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0500217 | 6.70217E+12 | -0.0192845 | -0.5775065 | 3.0500217 |

Appx13393

CONFIDENTIAL

exelon4_modeling_05092019

BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|-------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 716 | 6066.1 | 575238 | 0.1033221 | 5/9/19 2:12 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0477407 | 6.70217E+12 | -0.0253576 | -0.7593756 | 3.0477407 |
| 717 | 6051.34 | 575238 | 0.1030707 | 5/9/19 2:17 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.040325 | 6.70217E+12 | -0.0277084 | -0.8297742 | 3.040325 |
| 718 | 6061.78 | 575239 | 0.1040791 | 5/9/19 2:22 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.0700698 | 6.70217E+12 | -0.0259793 | -0.7779934 | 3.0700698 |
| 719 | 6063.51 | 575239 | 0.1041088 | 5/9/19 2:27 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.070946 | 6.70217E+12 | -0.0268247 | -0.8033103 | 3.070946 |
| 720 | 6069.07 | 575240 | 0.1042563 | 5/9/19 2:32 | -0.009959 | -0.2982389 | 4.79168E+13 | 3.0752977 | 6.70217E+12 | -0.0240329 | -0.7197052 | 3.0752977 |
| 721 | 6065.45 | 575242 | 0.1026794 | 5/9/19 2:37 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0287832 | 6.70217E+12 | -0.0250565 | -0.7503587 | 3.0287832 |
| 722 | 6056.78 | 575242 | 0.1025327 | 5/9/19 2:43 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0244539 | 6.70217E+12 | -0.0183811 | -0.5504527 | 3.0244539 |
| 723 | 6054.89 | 575242 | 0.1025007 | 5/9/19 2:48 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0235101 | 6.70217E+12 | -0.0211004 | -0.6318866 | 3.0235101 |
| 724 | 6052.82 | 575243 | 0.1032503 | 5/9/19 2:53 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.0456209 | 6.70217E+12 | -0.0280966 | -0.8413995 | 3.0456209 |
| 725 | 6054.43 | 575243 | 0.1032777 | 5/9/19 2:58 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.046431 | 6.70217E+12 | -0.0255341 | -0.7646612 | 3.046431 |
| 726 | 6054.32 | 575244 | 0.1033884 | 5/9/19 3:03 | -0.0077595 | -0.2323712 | 4.82017E+13 | 3.049695 | 6.70217E+12 | -0.0035264 | -0.1056039 | 3.049695 |
| 727 | 6068.65 | 575246 | 0.1006368 | 5/9/19 3:08 | -0.0077595 | -0.2323712 | 4.96368E+13 | 2.9685297 | 6.70217E+12 | -0.0237767 | -0.7120329 | 2.9685297 |
| 728 | 6068.33 | 575249 | 0.0992317 | 5/9/19 3:13 | -0.0077595 | -0.2323712 | 5.0337E+13 | 2.9720841 | 6.70217E+12 | -0.0227655 | -0.6817508 | 2.9720841 |
| 729 | 6063.73 | 575250 | 0.0992085 | 5/9/19 3:18 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9263997 | 6.70217E+12 | -0.0241747 | -0.7239517 | 2.9263997 |
| 730 | 6046.71 | 575250 | 0.09893 | 5/9/19 3:23 | -0.0077595 | -0.2323712 | 5.03106E+13 | 2.9181857 | 6.70217E+12 | -0.0246606 | -0.7385028 | 2.9181857 |
| 731 | 6046.74 | 575251 | 0.099455 | 5/9/19 3:28 | -0.0077595 | -0.2323712 | 5.00453E+13 | 2.933671 | 6.70217E+12 | -0.0228565 | -0.684476 | 2.933671 |
| 732 | 6058.26 | 575251 | 0.0992865 | 5/9/19 3:33 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9286995 | 6.70217E+12 | -0.0237663 | -0.7117215 | 2.9286995 |
| 733 | 6064.08 | 575252 | 0.0993819 | 5/9/19 3:38 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.931513 | 6.70217E+12 | -0.0229553 | -0.6874347 | 2.931513 |
| 734 | 6061.98 | 575252 | 0.0993474 | 5/9/19 3:43 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9304978 | 6.70217E+12 | -0.0218107 | -0.6531578 | 2.9304978 |
| 735 | 6061.61 | 575252 | 0.0993414 | 5/9/19 3:48 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9303189 | 6.70217E+12 | -0.0228651 | -0.6847335 | 2.9303189 |
| 736 | 6055.44 | 575252 | 0.0992403 | 5/9/19 3:53 | -0.0077595 | -0.2323712 | 5.02257E+13 | 2.9273362 | 6.70217E+12 | -0.0258057 | -0.7727947 | 2.9273362 |
| 737 | 6048.17 | 575253 | 0.1013391 | 5/9/19 3:58 | -0.0077595 | -0.2323712 | 4.91264E+13 | 2.9892481 | 6.70217E+12 | -0.0222549 | -0.6664601 | 2.9892481 |
| 738 | 6036.54 | 575253 | 0.1011443 | 5/9/19 4:03 | -0.0064119 | -0.192015 | 4.91264E+13 | 2.9835001 | 6.70217E+12 | -0.0201096 | -0.6022155 | 2.9835001 |
| 739 | 6032.68 | 575254 | 0.1009675 | 5/9/19 4:08 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9782848 | 6.70217E+12 | -0.0220837 | -0.6613332 | 2.9782848 |
| 740 | 6036.52 | 575254 | 0.1010317 | 5/9/19 4:13 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9801806 | 6.70217E+12 | -0.0189611 | -0.5678217 | 2.9801806 |
| 741 | 6048.03 | 575254 | 0.1012244 | 5/9/19 4:18 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.985863 | 6.70217E+12 | -0.0284786 | -0.8528391 | 2.985863 |
| 742 | 6049.12 | 575254 | 0.1012426 | 5/9/19 4:23 | -0.0064119 | -0.192015 | 4.9181E+13 | 2.9864011 | 6.70217E+12 | -0.0265276 | -0.7944132 | 2.9864011 |
| 743 | 6047.1 | 575255 | 0.102742 | 5/9/19 4:28 | -0.0064119 | -0.192015 | 4.84471E+13 | 3.0306289 | 6.70217E+12 | -0.0203002 | -0.6597311 | 3.0306289 |
| 744 | 6040.01 | 575255 | 0.1026215 | 5/9/19 4:33 | -0.0064119 | -0.192015 | 4.84471E+13 | 3.0270756 | 6.70217E+12 | -0.0249572 | -0.7473849 | 3.0270756 |
| 745 | 6039.32 | 575256 | 0.1033913 | 5/9/19 4:38 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0497802 | 6.70217E+12 | -0.0273476 | -0.8189695 | 3.0497802 |
| 746 | 6037.47 | 575256 | 0.1033596 | 5/9/19 4:43 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0488459 | 6.70217E+12 | -0.0285916 | -0.8562231 | 3.0488459 |
| 747 | 6046.95 | 575256 | 0.1035219 | 5/9/19 4:48 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0536332 | 6.70217E+12 | -0.0276954 | -0.8293849 | 3.0536332 |
| 748 | 6051.57 | 575256 | 0.103601 | 5/9/19 4:53 | -0.0064119 | -0.192015 | 4.80809E+13 | 3.0559662 | 6.70217E+12 | -0.0189461 | -0.5673725 | 3.0559662 |
| 749 | 6052.41 | 575257 | 0.1025409 | 5/9/19 4:58 | -0.0064119 | -0.192015 | 4.85847E+13 | 3.0246966 | 6.70217E+12 | -0.0213883 | -0.6405083 | 3.0246966 |
| 750 | 6058.73 | 575257 | 0.102648 | 5/9/19 5:03 | -0.001004 | -0.0300665 | 4.85847E+13 | 3.027855 | 6.70217E+12 | -0.0284985 | -0.8534351 | 3.027855 |
| 751 | 6054.8 | 575258 | 0.1018989 | 5/9/19 5:08 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0057607 | 6.70217E+12 | -0.0254371 | -0.7617564 | 3.0057607 |
| 752 | 6051.38 | 575258 | 0.1018414 | 5/9/19 5:13 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0040629 | 6.70217E+12 | -0.0222254 | -0.6655766 | 3.0040629 |
| 753 | 6048.3 | 575258 | 0.1017896 | 5/9/19 5:18 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0025339 | 6.70217E+12 | -0.0245437 | -0.735002 | 3.0025339 |
| 754 | 6051.14 | 575258 | 0.1018373 | 5/9/19 5:23 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0039438 | 6.70217E+12 | -0.0272051 | -0.8147021 | 3.0039438 |
| 755 | 6057.19 | 575258 | 0.1019392 | 5/9/19 5:28 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0069471 | 6.70217E+12 | -0.026005 | -0.7787631 | 3.0069471 |
| 756 | 6059.15 | 575259 | 0.1040181 | 5/9/19 5:33 | -0.001004 | -0.0300665 | 4.79481E+13 | 3.0682693 | 6.70217E+12 | -0.0148258 | -0.4439833 | 3.0682693 |
| 757 | 6061.72 | 575260 | 0.1037848 | 5/9/19 5:38 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0613901 | 6.70217E+12 | -0.0244808 | -0.7331184 | 3.0613901 |
| 758 | 6057.72 | 575260 | 0.1037164 | 5/9/19 5:43 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.05937 | 6.70217E+12 | -0.0243887 | -0.7303603 | 3.05937 |
| 759 | 6057.7 | 575260 | 0.103716 | 5/9/19 5:48 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0593599 | 6.70217E+12 | -0.0198852 | -0.5954955 | 3.0593599 |
| 760 | 6047.35 | 575260 | 0.1035388 | 5/9/19 5:53 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0541327 | 6.70217E+12 | -0.0198875 | -0.5955643 | 3.0541327 |
| 761 | 6044.98 | 575261 | 0.1039808 | 5/9/19 5:58 | -0.001004 | -0.0300665 | 4.78531E+13 | 3.0671699 | 6.70217E+12 | -0.0198792 | -0.5953158 | 3.0671699 |
| 762 | 6040.28 | 575262 | 0.1043375 | 5/9/19 6:03 | 0.0098991 | 0.2991402 | 4.76524E+13 | 3.077692 | 6.70217E+12 | -0.0173633 | -0.519973 | 3.077692 |
| 763 | 6034.01 | 575263 | 0.1041918 | 5/9/19 6:08 | 0.0098991 | 0.2991402 | 4.76695E+13 | 3.0733946 | 6.70217E+12 | -0.018275 | -0.5472753 | 3.0733946 |
| 764 | 6034.26 | 575263 | 0.1041961 | 5/9/19 6:13 | 0.0098991 | 0.2991402 | 4.76695E+13 | 3.0735219 | 6.70217E+12 | -0.0079803 | -0.2389834 | 3.0735219 |
| 765 | 6037.47 | 575263 | 0.1042516 | 5/9/19 6:18 | 0.0098991 | 0.2991402 | 4.76695E+13 | 3.0751569 | 6.70217E+12 | -0.0028126 | -0.084228 | 3.0751569 |
| 766 | 6035.61 | 575264 | 0.1036859 | 5/9/19 6:23 | 0.0098991 | 0.2991402 | 4.79148E+13 | 3.0584702 | 6.70217E+12 | -0.0009188 | -0.027515 | 3.0584702 |

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exelon4_modeling_05092019

BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 767 | 6032.26 | 575264 | 0.1036283 | 5/9/19 6:28 | 0.009891 | 0.2991402 | 4.79148E+13 | 3.0567726 | 6.70217E+12 | -0.0017763 | -0.0531943 | 3.0567726 |
| 768 | 6035.08 | 575266 | 0.1012996 | 5/9/19 6:33 | 0.009891 | 0.2991402 | 4.90392E+13 | 2.988081 | 6.70217E+12 | -0.0029613 | -0.0886811 | 2.988081 |
| 769 | 6038.27 | 575266 | 0.1013531 | 5/9/19 6:38 | 0.009891 | 0.2991402 | 4.90392E+13 | 2.9896604 | 6.70217E+12 | -0.0017698 | -0.0529996 | 2.9896604 |
| 770 | 6038.35 | 575267 | 0.1004336 | 5/9/19 6:43 | 0.009891 | 0.2991402 | 4.94889E+13 | 2.9625364 | 6.70217E+12 | -0.0040978 | -0.1227155 | 2.9625364 |
| 771 | 6041.06 | 575267 | 0.1004787 | 5/9/19 6:48 | 0.009891 | 0.2991402 | 4.94889E+13 | 2.963866 | 6.70217E+12 | -0.0041121 | -0.1231437 | 2.963866 |
| 772 | 6032.6 | 575269 | 0.1003466 | 5/9/19 6:53 | 0.009891 | 0.2991402 | 4.94846E+13 | 2.9599697 | 6.70217E+12 | -0.0017941 | -0.0537273 | 2.9599697 |
| 773 | 6038.62 | 575269 | 0.1004467 | 5/9/19 6:58 | 0.009891 | 0.2991402 | 4.94846E+13 | 2.9629235 | 6.70217E+12 | -0.0169009 | -0.5061256 | 2.9629235 |
| 774 | 6023.18 | 575269 | 0.1001899 | 5/9/19 7:03 | 0.015734 | 0.4711809 | 4.94846E+13 | 2.9553477 | 6.70217E+12 | -0.0127165 | -0.3808168 | 2.9553477 |
| 775 | 6018.06 | 575270 | 0.100393 | 5/9/19 7:08 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9613379 | 6.70217E+12 | -0.0057831 | -0.1731846 | 2.9613379 |
| 776 | 6028.56 | 575270 | 0.1005681 | 5/9/19 7:13 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9665047 | 6.70217E+12 | -0.0011814 | -0.035379 | 2.9665047 |
| 777 | 6023.05 | 575271 | 0.1000255 | 5/9/19 7:18 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9505 | 6.70217E+12 | -0.0018878 | -0.0565333 | 2.9505 |
| 778 | 6002.6 | 575271 | 0.0996859 | 5/9/19 7:23 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9404822 | 6.70217E+12 | -0.0019315 | -0.057842 | 2.9404822 |
| 779 | 6004.55 | 575271 | 0.0997183 | 5/9/19 7:28 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9414374 | 6.70217E+12 | -0.0032781 | -0.0981682 | 2.9414374 |
| 780 | 6023.65 | 575271 | 0.1000355 | 5/9/19 7:33 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9507939 | 6.70217E+12 | -0.0044118 | -0.1321187 | 2.9507939 |
| 781 | 6022.52 | 575272 | 0.1006869 | 5/9/19 7:38 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9700094 | 6.70217E+12 | -0.0183056 | -0.5481917 | 2.9700094 |
| 782 | 6016.76 | 575272 | 0.1005906 | 5/9/19 7:43 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9671688 | 6.70217E+12 | -0.004465 | -0.1337119 | 2.9671688 |
| 783 | 6007.87 | 575272 | 0.100442 | 5/9/19 7:48 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9627847 | 6.70217E+12 | -0.0011594 | -0.0347202 | 2.9627847 |
| 784 | 5998.51 | 575272 | 0.1002855 | 5/9/19 7:53 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9581688 | 6.70217E+12 | -0.0019525 | -0.0584709 | 2.9581688 |
| 785 | 6004.67 | 575273 | 0.101848 | 5/9/19 7:58 | 0.015734 | 0.4711809 | 4.85294E+13 | 3.0042572 | 6.70217E+12 | -0.016446 | -0.4925029 | 3.0042572 |
| 786 | 5986.82 | 575273 | 0.1015452 | 5/9/19 8:03 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9953265 | 6.70217E+12 | -0.0226577 | -0.6785226 | 2.9953265 |
| 787 | 5966.01 | 575273 | 0.1011922 | 5/9/19 8:08 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9849149 | 6.70217E+12 | -0.0040549 | -0.1214307 | 2.9849149 |
| 788 | 5975.72 | 575273 | 0.1013569 | 5/9/19 8:13 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.989773 | 6.70217E+12 | 0.0088876 | 0.266154 | 2.989773 |
| 789 | 5974.19 | 575273 | 0.101331 | 5/9/19 8:18 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9890075 | 6.70217E+12 | 0.0059397 | 0.1778742 | 2.9890075 |
| 790 | 5989.16 | 575275 | 0.1021458 | 5/9/19 8:23 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130416 | 6.70217E+12 | 0.005809 | 0.1739602 | 3.0130416 |
| 791 | 5989.1 | 575275 | 0.1021448 | 5/9/19 8:28 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130114 | 6.70217E+12 | 0.001868 | 0.005594 | 3.0130114 |
| 792 | 5990.38 | 575275 | 0.1021666 | 5/9/19 8:33 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0136553 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0136553 |
| 793 | 5999.35 | 575275 | 0.1023196 | 5/9/19 8:38 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.018168 | 6.70217E+12 | -0.0026113 | -0.0781997 | 3.018168 |
| 794 | 6009.99 | 575276 | 0.1040749 | 5/9/19 8:43 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0699468 | 6.70217E+12 | 0.0003791 | 0.0113528 | 3.0699468 |
| 795 | 6015.23 | 575276 | 0.1041657 | 5/9/19 8:48 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0726234 | 6.70217E+12 | 0.0045541 | 0.1363801 | 3.0726234 |
| 796 | 6006.59 | 575276 | 0.1040161 | 5/9/19 8:53 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0682101 | 6.70217E+12 | 0.0020439 | 0.061208 | 3.0682101 |
| 797 | 6012.06 | 575276 | 0.1041108 | 5/9/19 8:58 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0710042 | 6.70217E+12 | 0.0057903 | 0.1734002 | 3.0710042 |
| 798 | 5997.24 | 575276 | 0.1038541 | 5/9/19 9:03 | 0.021087 | 0.6314854 | 4.75331E+13 | 3.063434 | 6.70217E+12 | 0.0154138 | 0.4615919 | 3.063434 |
| 799 | 6009.31 | 575277 | 0.1048522 | 5/9/19 9:08 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0928732 | 6.70217E+12 | 0.007881 | 0.2360097 | 3.0928732 |
| 800 | 6014.99 | 575277 | 0.1049513 | 5/9/19 9:13 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0957966 | 6.70217E+12 | 0.0015859 | 0.0474924 | 3.0957966 |
| 801 | 6015.14 | 575277 | 0.1049539 | 5/9/19 9:18 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0958738 | 6.70217E+12 | 0.0110437 | 0.330722 | 3.0958738 |
| 802 | 6010.98 | 575277 | 0.1048813 | 5/9/19 9:23 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0937327 | 6.70217E+12 | 0.0082541 | 0.2471828 | 3.0937327 |
| 803 | 6015.8 | 575279 | 0.1061867 | 5/9/19 9:28 | 0.021087 | 0.6314854 | 4.66328E+13 | 3.13224 | 6.70217E+12 | 0.0098213 | 0.2941152 | 3.13224 |
| 804 | 6008.98 | 575281 | 0.1036694 | 5/9/19 9:33 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0579847 | 6.70217E+12 | 0.0137284 | 0.4111198 | 3.0579847 |
| 805 | 6005.02 | 575281 | 0.1036011 | 5/9/19 9:38 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0559695 | 6.70217E+12 | 0.0148862 | 0.4457921 | 3.0559695 |
| 806 | 5997.86 | 575281 | 0.1033913 | 5/9/19 9:43 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0497812 | 6.70217E+12 | 0.019156 | 0.5736588 | 3.0497812 |
| 807 | 6001.7 | 575281 | 0.1035438 | 5/9/19 9:48 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0542799 | 6.70217E+12 | 0.0155476 | 0.4655983 | 3.0542799 |
| 808 | 5996.77 | 575281 | 0.1034587 | 5/9/19 9:53 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.051771 | 6.70217E+12 | 0.0127646 | 0.3822572 | 3.051771 |
| 809 | 5997.26 | 575281 | 0.1034672 | 5/9/19 9:58 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0520204 | 6.70217E+12 | 0.01036 | 0.3102475 | 3.0520204 |
| 810 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:03 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | -0.0001443 | -0.0043213 | 3.050967 |
| 811 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:08 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | 0.0134747 | 0.4035223 | 3.050967 |
| 812 | 5978.15 | 575281 | 0.1031375 | 5/9/19 10:13 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0422953 | 6.70217E+12 | 0.0153319 | 0.4591393 | 3.0422953 |
| 813 | 5989.44 | 575281 | 0.1033323 | 5/9/19 10:18 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0480408 | 6.70217E+12 | 0.016155 | 0.4837884 | 3.0480408 |
| 814 | 6001.74 | 575282 | 0.1070813 | 5/9/19 10:23 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.158626 | 6.70217E+12 | 0.0174376 | 0.522198 | 3.158626 |
| 815 | 6010.06 | 575282 | 0.1072297 | 5/9/19 10:28 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.1630047 | 6.70217E+12 | 0.0234385 | 0.7019049 | 3.1630047 |
| 816 | 6009.71 | 575283 | 0.1079065 | 5/9/19 10:33 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1829698 | 6.70217E+12 | 0.0203173 | 0.6084354 | 3.1829698 |
| 817 | 5995.73 | 575283 | 0.1076555 | 5/9/19 10:38 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1755655 | 6.70217E+12 | 0.019624 | 0.5876734 | 3.1755655 |

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exelon4_modeling_05092019

BB100000014

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 818 | 6000.73 | 575284 | 0.1065399 | 5/9/19 10:43 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.142657 | 6.70217E+12 | 0.0143614 | 0.4300761 | 3.142657 |
| 819 | 6007.62 | 575284 | 0.1066622 | 5/9/19 10:48 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1462654 | 6.70217E+12 | 0.0184275 | 0.5518422 | 3.1462654 |
| 820 | 6006.48 | 575284 | 0.1066642 | 5/9/19 10:53 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1456683 | 6.70217E+12 | 0.0226632 | 0.6786873 | 3.1456683 |
| 821 | 5999.23 | 575284 | 0.1065133 | 5/9/19 10:58 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1418714 | 6.70217E+12 | 0.2007318 | 6.0112483 | 6.0112483 |
| 822 | 6004.02 | 575284 | 0.1065983 | 5/9/19 11:03 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.14438 | 6.70217E+12 | 0.0307427 | 0.9206414 | 3.14438 |
| 823 | 6000.99 | 575284 | 0.1065445 | 5/9/19 11:08 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1427931 | 6.70217E+12 | 0.0293874 | 0.8800547 | 3.1427931 |
| 824 | 6003.38 | 575284 | 0.1065869 | 5/9/19 11:13 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1440448 | 6.70217E+12 | 0.0349274 | 1.0459592 | 3.1440448 |
| 825 | 6014.88 | 575284 | 0.1067911 | 5/9/19 11:18 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1500675 | 6.70217E+12 | 0.0260766 | 0.7809072 | 3.1500675 |
| 826 | 6026.81 | 575284 | 0.1070029 | 5/9/19 11:24 | 0.0217961 | 0.6527205 | 4.63618E+13 | 3.1563154 | 6.70217E+12 | 0.0118225 | 0.3540445 | 3.1563154 |

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exelon4_modeling_05092019

BB100000014

Message

From: Austin Storms [austin@bearbox.io]
on behalf of Austin Storms <austin@bearbox.io> [austin@bearbox.io]
Sent: 5/6/2019 4:51:10 PM
To: Todd Garland [todd@buysellads.com]
Subject: Re: Fwd: EXELON DATA MODELING DUMP 2

Hey Todd,

Same! Great talking to you as well and thanks for the advice on not selling myself short - I've been thinking about it since our conversation.

I've got two different models for breakeven - the sheet I sent you is just the breakeven cost to turn_off your miners (where mining_revenue = electricity_cost_opex) in 5-min increments (see below).

```
def get_breakeven_USD_per_kWh(miner_hashrate, hashrate, BTC_price, kW_load):
    try:
        breakeven = ((miner_hashrate / hashrate) * (block_reward * 144) * (BTC_price)) / (kW_load * 24)
        return breakeven
    except Exception as e:
        print("Error: " + str(e))
```

There's another model that amortizes the cost of the miners (S9s or equivalent generation) over a 12-month useful life with \$0 resale value - but it wasn't done by the time I got to Boston. I just finished converting the scripts from local SQLite3 dbs to PostgreSQL this morning and will send over some data when it's run for a day or two if you're interested.

```
def get_breakeven_USD_per_kWh(miner_hashrate, hashrate, BTC_price, kW_load, miner_cost,
    expected_blocks_daily):
    try:
        revenue_5min = ((miner_hashrate / hashrate) * (block_reward * expected_blocks_daily) *
            (BTC_price)) / (12*24)
        #print(revenue_5min)

        amortized_5min_cost = ((miner_cost * 272) / (12 * 24 * 30.5 * 12))
        #print(amortized_5min_cost)

        actual_5min_revenue = revenue_5min - amortized_5min_cost
        #print(actual_5min_revenue)

        breakeven = actual_5min_revenue / (kW_load/12)

        return breakeven
    except Exception as e:
        print("Error: " + str(e))
```

So I'm not sure that I need to get the PDUs UL certified themselves - they aren't manufactured, they're simply assembled out of existing components. I'm waiting to hear back from them on field-testing requirements and will let you know when I do.

Talk soon!

A

Austin M. Storms
 BearBox, LLC
 611 O' Keefe Avenue

Bearbox v Lanicum
 Trial Exhibit
TX919

New Orleans, LA 70113
austin@bearbox.io

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On Mon, May 6, 2019 at 3:17 PM Todd Garland <todd@buysellads.com> wrote:
Hi Austin,

I hope you had a nice time in Boston last week. It was great to put a face to the name and meet in person.

Question about the sheets... what do you factor into the "breakeven_mining_cost"? Is it all of the costs (hardware, labor, etc etc) or something else with less subjectivity to it (e.g. the amortization period of the hardware is definitely subjective)?

Do you have a sense what it would take cost wise to get your PDU's certified?

- Todd

Austin Storms wrote on 5/3/19 3:51 PM:

See attached.

Begin forwarded message:

From: Austin Storms <austin@bearbox.io>
Date: May 3, 2019 at 12:15:58 PM EDT
To: Austin Storms <austin@bearbox.io>
Cc: Ben Hakes <ben@paretoadvisors.com>
Subject: EXELON DATA MODELING DUMP 2

See attached.

Austin M. Storms
BearBox, LLC
611 O' Keefe Avenue
New Orleans, LA 70113
austin@bearbox.io

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Message

From: Austin Storms [austin@bearbox.io]
on behalf of Austin Storms <austin@bearbox.io> [austin@bearbox.io]
Sent: 5/3/2019 2:51:35 PM
To: todd@buysellads.com
Subject: Fwd: EXELON DATA MODELING DUMP 2
Attachments: EXELON4.csv; ATT00002.bin; EXELON7_8.csv; ATT00004.bin; EXELON5_6.csv; ATT00006.bin; EXELON_HPW1.csv; ATT00008.bin; EXELON10_11.csv; ATT00010.bin; EXELON9.csv; ATT00012.bin

See attached.

Begin forwarded message:

From: Austin Storms <austin@bearbox.io>
Date: May 3, 2019 at 12:15:58 PM EDT
To: Austin Storms <austin@bearbox.io>
Cc: Ben Hakes <ben@paretoadvisors.com>
Subject: EXELON DATA MODELING DUMP 2

See attached.

Austin M. Storms
BearBox, LLC
611 O' Keefe Avenue
New Orleans, LA 70113
austin@bearbox.io

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| |
|---|
| Bearbox v Lancium Trial Exhibit TX920 |
|---|

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 17:54.4 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.85 | 0.0051274 | 0.0037112 | 0.0737773 | 0.1586418 | 0.1148245 | 2.2484294 | 2.2484294 |
| 3 | 22:57.3 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.0051274 | 0.0047409 | 0.0737656 | 0.1586418 | 0.1466834 | 2.2480744 | 2.2480744 |
| 4 | 28:00.5 | 574204 | 6.35303E+12 | 5.38327E+13 | 5319.51 | 0.0051274 | 0.0044381 | 0.0737587 | 0.1586418 | 0.1373148 | 2.2478631 | 2.2478631 |
| 5 | 33:03.6 | 574204 | 6.35303E+12 | 5.38327E+13 | 5321.94 | 0.0051274 | 0.0035711 | 0.0737924 | 0.1586418 | 0.1104898 | 2.24889 | 2.24889 |
| 6 | 38:06.6 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.95 | 0.0051274 | 0.0020195 | 0.0748335 | 0.1586418 | 0.0624833 | 2.2806172 | 2.2806172 |
| 7 | 43:09.6 | 574205 | 6.35303E+12 | 5.30839E+13 | 5326.19 | 0.0051274 | 0.0006489 | 0.0748931 | 0.1586418 | 0.020077 | 2.2824342 | 2.2824342 |
| 8 | 48:12.6 | 574206 | 6.35303E+12 | 5.44532E+13 | 5326.23 | 0.0051274 | 0.0036433 | 0.0730105 | 0.1586418 | 0.1127237 | 2.2250598 | 2.2250598 |
| 9 | 53:15.7 | 574206 | 6.35303E+12 | 5.44532E+13 | 5327.84 | 0.0051274 | 0.0056932 | 0.0730325 | 0.1586418 | 0.1761476 | 2.2257324 | 2.2257324 |
| 10 | 58:18.9 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.8 | 0.0051274 | -0.0005791 | 0.073666 | 0.1586418 | -0.0179174 | 2.2450369 | 2.2450369 |
| 11 | 03:21.8 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.2 | 0.0003049 | 0.0011538 | 0.0736577 | 0.0094336 | 0.0356986 | 2.244784 | 2.244784 |
| 12 | 08:24.9 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0003049 | -0.0046781 | 0.0743412 | 0.0094336 | -0.1450189 | 2.2656139 | 2.2656139 |
| 13 | 13:28.6 | 574209 | 6.35303E+12 | 5.33477E+13 | 5325.01 | 0.0003049 | -0.009641 | 0.0745063 | 0.0094336 | -0.2982925 | 2.2706452 | 2.2706452 |
| 14 | 18:31.5 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0003049 | -0.0003526 | 0.0744503 | 0.0094336 | -0.0109094 | 2.2689395 | 2.2689395 |
| 15 | 23:35.0 | 574210 | 6.35303E+12 | 5.36221E+13 | 5327.95 | 0.0003049 | 0.0001515 | 0.074166 | 0.0094336 | -0.0046874 | 2.2602762 | 2.2602762 |
| 16 | 28:38.3 | 574212 | 6.35303E+12 | 5.54528E+13 | 5325.19 | 0.0003049 | -0.019323 | 0.0716803 | 0.0094336 | -0.5978598 | 2.184522 | 2.184522 |
| 17 | 33:41.4 | 574212 | 6.35303E+12 | 5.54528E+13 | 5323.36 | 0.0003049 | -0.0316161 | 0.0716557 | 0.0094336 | -0.9782021 | 2.1837713 | 2.1837713 |
| 18 | 38:44.4 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0003049 | -0.0307121 | 0.0711001 | 0.0094336 | -0.9502324 | 2.1668382 | 2.1668382 |
| 19 | 43:47.3 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0003049 | -0.0298462 | 0.0711001 | 0.0094336 | -0.9234414 | 2.1668382 | 2.1668382 |
| 20 | 48:50.3 | 574215 | 6.35303E+12 | 5.58834E+13 | 5325.88 | 0.0003049 | -0.0268598 | 0.0711372 | 0.0094336 | -0.8310422 | 2.1679698 | 2.1679698 |
| 21 | 53:53.3 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.72 | 0.0003049 | -0.0306503 | 0.0711484 | 0.0094336 | -0.9483203 | 2.1683117 | 2.1683117 |
| 22 | 58:56.4 | 574216 | 6.35303E+12 | 5.54406E+13 | 5326.69 | 0.0003049 | -0.0316255 | 0.0717163 | 0.0094336 | -0.978493 | 2.1856184 | 2.1856184 |
| 23 | 03:59.3 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.34 | -0.0001867 | -0.0309598 | 0.0717654 | -0.0057765 | -0.9578962 | 2.187116 | 2.187116 |
| 24 | 09:02.8 | 574219 | 6.35303E+12 | 5.59245E+13 | 5330.78 | -0.0001867 | -0.0034559 | 0.0711504 | -0.0057765 | -0.1069255 | 2.1683719 | 2.1683719 |
| 25 | 14:05.9 | 574220 | 6.35303E+12 | 5.59914E+13 | 5329.45 | -0.0001867 | -0.0195392 | 0.0710476 | -0.0057765 | -0.6045428 | 2.1652392 | 2.1652392 |
| 26 | 19:08.9 | 574220 | 6.35303E+12 | 5.59914E+13 | 5343.74 | -0.0001867 | -0.0179458 | 0.0712381 | -0.0057765 | -0.5552431 | 2.1710449 | 2.1710449 |
| 27 | 24:11.9 | 574223 | 6.35303E+12 | 5.60912E+13 | 5334.1 | -0.0001867 | -0.027899 | 0.0709831 | -0.0057765 | -0.8631951 | 2.1632744 | 2.1632744 |
| 28 | 29:14.9 | 574226 | 6.35303E+12 | 5.60441E+13 | 5330.7 | -0.0001867 | -0.030306 | 0.0709974 | -0.0057765 | -0.9376676 | 2.1637101 | 2.1637101 |
| 29 | 34:17.9 | 574226 | 6.35303E+12 | 5.60441E+13 | 5333.77 | -0.0001867 | -0.0264455 | 0.0710383 | -0.0057765 | -0.8182238 | 2.1649562 | 2.1649562 |
| 30 | 39:21.0 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | -0.0001867 | -0.0197591 | 0.0714897 | -0.0057765 | -0.6113466 | 2.1787132 | 2.1787132 |
| 31 | 44:24.0 | 574227 | 6.35303E+12 | 5.56725E+13 | 5339.99 | -0.0001867 | -0.0202167 | 0.0715959 | -0.0057765 | -0.6255047 | 2.1819493 | 2.1819493 |
| 32 | 49:27.4 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.15 | -0.0001867 | -0.0298226 | 0.0721925 | -0.0057765 | -0.6133112 | 2.2001303 | 2.2001303 |
| 33 | 54:30.5 | 574229 | 6.35303E+12 | 5.5892E+13 | 5338.61 | -0.0001867 | -0.0294808 | 0.0712963 | -0.0057765 | -0.912136 | 2.1728179 | 2.1728179 |
| 34 | 59:33.7 | 574229 | 6.35303E+12 | 5.5892E+13 | 5336.4 | -0.0001867 | -0.0238324 | 0.0712668 | -0.0057765 | -0.7373745 | 2.1719184 | 2.1719184 |
| 35 | 04:36.7 | 574229 | 6.35303E+12 | 5.5892E+13 | 5340.73 | -0.0002365 | -0.0191566 | 0.0713246 | -0.0073173 | -0.5927052 | 2.1736808 | 2.1736808 |
| 36 | 09:39.8 | 574229 | 6.35303E+12 | 5.5892E+13 | 5341.69 | -0.0002365 | -0.0309356 | 0.0713374 | -0.0073173 | -0.9571475 | 2.1740715 | 2.1740715 |
| 37 | 14:43.1 | 574230 | 6.35303E+12 | 5.53347E+13 | 5347.99 | -0.0002365 | -0.030382 | 0.0721408 | -0.0073173 | -0.9400191 | 2.1985565 | 2.1985565 |
| 38 | 19:46.4 | 574230 | 6.35303E+12 | 5.53347E+13 | 5348.14 | -0.0002365 | -0.0302146 | 0.0721428 | -0.0073173 | -0.9438497 | 2.1986182 | 2.1986182 |
| 39 | 24:49.4 | 574231 | 6.35303E+12 | 5.49411E+13 | 5341.24 | -0.0002365 | -0.0278795 | 0.0725566 | -0.0073173 | -0.8625917 | 2.211515 | 2.211515 |
| 40 | 29:53.0 | 574231 | 6.35303E+12 | 5.49411E+13 | 5342.72 | -0.0002365 | -0.0280598 | 0.0725861 | -0.0073173 | -0.8681702 | 2.2121278 | 2.2121278 |
| 41 | 34:56.1 | 574232 | 6.35303E+12 | 5.47061E+13 | 5349.99 | -0.0002365 | -0.0264476 | 0.0729971 | -0.0073173 | -0.8182887 | 2.2246529 | 2.2246529 |
| 42 | 39:59.3 | 574232 | 6.35303E+12 | 5.47061E+13 | 5346.06 | -0.0002365 | -0.0271937 | 0.0729435 | -0.0073173 | -0.8413731 | 2.2230187 | 2.2230187 |
| 43 | 45:02.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5350.69 | -0.0002365 | -0.0271939 | 0.0730067 | -0.0073173 | -0.8413793 | 2.224944 | 2.224944 |
| 44 | 50:06.0 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.36 | -0.0002365 | -0.0287285 | 0.0731113 | -0.0073173 | -0.888598 | 2.2281334 | 2.2281334 |
| 45 | 55:09.1 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.38 | -0.0002365 | -0.0279997 | 0.0731116 | -0.0073173 | -0.8663107 | 2.2281417 | 2.2281417 |
| 46 | 00:12.7 | 574232 | 6.35303E+12 | 5.47061E+13 | 5374.99 | 0.0021778 | -0.0258886 | 0.0733382 | 0.0673811 | -0.8009933 | 2.2350485 | 2.2350485 |
| 47 | 05:15.7 | 574233 | 6.35303E+12 | 5.35475E+13 | 5380.56 | 0.0021778 | -0.0030487 | 0.0750026 | 0.0673811 | -0.0943268 | 2.2857722 | 2.2857722 |
| 48 | 10:18.8 | 574233 | 6.35303E+12 | 5.35475E+13 | 5358.81 | 0.0021778 | -0.0011696 | 0.0746994 | 0.0673811 | -0.0361874 | 2.2765324 | 2.2765324 |
| 49 | 15:21.8 | 574233 | 6.35303E+12 | 5.35475E+13 | 5362.05 | 0.0021778 | -0.0011696 | 0.0747446 | 0.0673811 | -0.0361874 | 2.2779088 | 2.2779088 |
| 50 | 20:24.8 | 574233 | 6.35303E+12 | 5.35475E+13 | 5360.02 | 0.0021778 | -0.0182287 | 0.0747163 | 0.0673811 | -0.563996 | 2.2770464 | 2.2770464 |
| 51 | 25:28.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5359.43 | 0.0021778 | -0.0150284 | 0.0752505 | 0.0673811 | -0.4649787 | 2.2933275 | 2.2933275 |
| 52 | 30:31.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5349.43 | 0.0021778 | -0.0150284 | 0.0751101 | 0.0673811 | -0.4649787 | 2.2890484 | 2.2890484 |
| 53 | 35:34.9 | 574234 | 6.35303E+12 | 5.31615E+13 | 5344.78 | 0.0021778 | -0.0164614 | 0.0750448 | 0.0673811 | -0.5093157 | 2.2870587 | 2.2870587 |
| 54 | 40:37.9 | 574236 | 6.35303E+12 | 5.29706E+13 | 5350.2 | 0.0021778 | -0.0316425 | 0.0753917 | 0.0673811 | -0.9790189 | 2.2976295 | 2.2976295 |
| 55 | 45:40.9 | 574237 | 6.35303E+12 | 5.26741E+13 | 5349.03 | 0.0021778 | -0.0303346 | 0.0757995 | 0.0673811 | -0.9385525 | 2.3100592 | 2.3100592 |
| 56 | 50:43.9 | 574238 | 6.35303E+12 | 5.2719E+13 | 5355.31 | 0.0021778 | -0.0059234 | 0.0758238 | 0.0673811 | -0.18327 | 2.3107995 | 2.3107995 |
| 57 | 55:46.8 | 574238 | 6.35303E+12 | 5.2719E+13 | 5349.01 | 0.0021778 | -0.0018265 | 0.0757346 | 0.0673811 | -0.0565119 | 2.308081 | 2.308081 |
| 58 | 00:49.8 | 574239 | 6.35303E+12 | 5.28168E+13 | 5350.18 | 0.011704 | -0.0315837 | 0.0756109 | 0.3621218 | -0.9771997 | 2.3043114 | 2.3043114 |
| 59 | 05:52.7 | 574239 | 6.35303E+12 | 5.28168E+13 | 5349.09 | 0.011704 | -0.0304342 | 0.0755955 | 0.3621218 | -0.9416341 | 2.303842 | 2.303842 |
| 60 | 10:55.6 | 574240 | 6.35303E+12 | 5.25658E+13 | 5348.27 | 0.011704 | -0.0002699 | 0.0759448 | 0.3621218 | -0.0083507 | 2.314487 | 2.314487 |
| 61 | 15:58.4 | 574243 | 6.35303E+12 | 5.35108E+13 | 5354.35 | 0.011704 | 0.0001633 | 0.0746885 | 0.3621218 | 0.0053619 | 2.2762 | 2.2762 |
| 62 | 21:01.3 | 574245 | 6.35303E+12 | 5.38531E+13 | 5358.66 | 0.011704 | 0.0007385 | 0.0742735 | 0.3621218 | 0.0228492 | 2.2635505 | 2.2635505 |
| 63 | 26:04.2 | 574246 | 6.35303E+12 | 5.41667E+13 | 5357.51 | 0.011704 | -0.0035407 | 0.0738276 | 0.3621218 | -0.1095493 | 2.2499632 | 2.2499632 |
| 64 | 31:07.4 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.77 | 0.011704 | -0.0018346 | 0.0738863 | 0.3621218 | -0.0567625 | 2.2517522 | 2.2517522 |
| 65 | 36:10.5 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.98 | 0.011704 | 0.0045642 | 0.0738892 | 0.3621218 | 0.1412163 | 2.2518404 | 2.2518404 |
| 66 | 41:13.6 | 574246 | 6.35303E+12 | 5.41667E+13 | 5366.22 | 0.011704 | -0.0158533 | 0.0739476 | 0.3621218 | -0.4905011 | 2.2536211 | 2.2536211 |
| 67 | 46:16.7 | 574248 | 6.35303E+12 | 5.41479E+13 | 5365.01 | 0.011704 | -0.0018765 | 0.0739567 | 0.3621218 | -0.0580589 | 2.2538956 | 2.2538956 |
| 68 | 51:19.6 | 574251 | 6.35303E+12 | 5.52479E+13 | 5360.99 | 0.011704 | 0.001301 | 0.0724298 | 0.3621218 | 0.0402529 | 2.2073645 | 2.2073645 |
| 69 | 56:22.6 | 574251 | 6.35303E+12 | 5.52479E+13 | 5356.1 | 0.011704 | 0.0012559 | 0.0723638 | 0.3621218 | 0.0388575 | 2.2053511 | 2.2053511 |
| 70 | 01:25.7 | 574252 | 6.35303E+12 | 5.50584E+13 | 5358.27 | 0.0165726 | 0.0046048 | 0.0726423 | 0.5127562 | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_UMP | real_time_UMP | breakeven_mining_cost | day_ahead_UMP_rev | real_time_UMP_rev | mining_rev | realized_rev |
| 96 | 12:51.9 | 574269 | 6.35303E+12 | 5.58958E+13 | 5350.76 | 0.0186731 | 0.008065 | 0.0714536 | 0.5777457 | 0.2495311 | 2.1776143 | 2.1776143 |
| 97 | 17:54.9 | 574270 | 6.35303E+12 | 5.6144E+13 | 5352.52 | 0.0186731 | 0.0075466 | 0.0711611 | 0.5777457 | 0.2334918 | 2.1686995 | 2.1686995 |
| 98 | 22:57.9 | 574271 | 6.35303E+12 | 5.6095E+13 | 5356.14 | 0.0186731 | 0.007405 | 0.0712715 | 0.5777457 | 0.2291107 | 2.172064 | 2.172064 |
| 99 | 28:01.0 | 574271 | 6.35303E+12 | 5.6095E+13 | 5350.02 | 0.0186731 | 0.0072809 | 0.0711901 | 0.5777457 | 0.225271 | 2.1695821 | 2.1695821 |
| 100 | 33:04.1 | 574271 | 6.35303E+12 | 5.6095E+13 | 5354.6 | 0.0186731 | 0.0074885 | 0.071251 | 0.5777457 | 0.2316942 | 2.1714394 | 2.1714394 |
| 101 | 38:07.2 | 574273 | 6.35303E+12 | 5.53104E+13 | 5354.48 | 0.0186731 | 0.0079015 | 0.0722601 | 0.5777457 | 0.2444724 | 2.2021917 | 2.2021917 |
| 102 | 43:10.6 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.03 | 0.0186731 | 0.0099941 | 0.0722236 | 0.5777457 | 0.3092175 | 2.2010786 | 2.2010786 |
| 103 | 48:13.7 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.14 | 0.0186731 | 0.0113173 | 0.0722116 | 0.5777457 | 0.3501573 | 2.2007128 | 2.2007128 |
| 104 | 53:17.4 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.18 | 0.0186731 | 0.0164817 | 0.0722256 | 0.5777457 | 0.5099438 | 2.2011403 | 2.2011403 |
| 105 | 58:20.3 | 574274 | 6.35303E+12 | 5.53441E+13 | 5369.19 | 0.0186731 | 0.0139726 | 0.0724146 | 0.5777457 | 0.4292182 | 2.2068988 | 2.2068988 |
| 106 | 03:23.5 | 574274 | 6.35303E+12 | 5.53441E+13 | 5370.66 | 0.0212675 | 0.0081036 | 0.0724344 | 0.6580165 | 0.2816654 | 2.207503 | 2.207503 |
| 107 | 08:26.5 | 574274 | 6.35303E+12 | 5.53441E+13 | 5369.11 | 0.0212675 | 0.0082747 | 0.0724135 | 0.6580165 | 0.2560192 | 2.2068659 | 2.2068659 |
| 108 | 13:29.7 | 574274 | 6.35303E+12 | 5.53441E+13 | 5363.09 | 0.0212675 | 0.0151147 | 0.0723323 | 0.6580165 | 0.4676488 | 2.2043915 | 2.2043915 |
| 109 | 18:32.7 | 574275 | 6.35303E+12 | 5.36343E+13 | 5365.75 | 0.0212675 | 0.0155968 | 0.0746751 | 0.6580165 | 0.482565 | 2.2757902 | 2.2757902 |
| 110 | 23:35.6 | 574275 | 6.35303E+12 | 5.36343E+13 | 5369.99 | 0.0212675 | 0.0157182 | 0.0747341 | 0.6580165 | 0.4863211 | 2.2775885 | 2.2775885 |
| 111 | 28:38.4 | 574275 | 6.35303E+12 | 5.36343E+13 | 5367.99 | 0.0212675 | 0.0155447 | 0.0747063 | 0.6580165 | 0.480953 | 2.2767402 | 2.2767402 |
| 112 | 33:41.8 | 574277 | 6.35303E+12 | 5.50501E+13 | 5371.77 | 0.0212675 | 0.0198338 | 0.0728363 | 0.6580165 | 0.6136578 | 2.2197521 | 2.2197521 |
| 113 | 38:45.1 | 574279 | 6.35303E+12 | 5.54528E+13 | 5384.78 | 0.0212675 | 0.0190493 | 0.0724824 | 0.6580165 | 0.5893853 | 2.2089672 | 2.2089672 |
| 114 | 43:48.1 | 574281 | 6.35303E+12 | 5.67946E+13 | 5379.99 | 0.0212675 | 0.0170259 | 0.0707071 | 0.6580165 | 0.5267813 | 2.1548622 | 2.1548622 |
| 115 | 48:51.0 | 574281 | 6.35303E+12 | 5.67946E+13 | 5377.85 | 0.0212675 | 0.0169016 | 0.070679 | 0.6580165 | 0.5229355 | 2.154005 | 2.154005 |
| 116 | 53:54.3 | 574282 | 6.35303E+12 | 5.6096E+13 | 5375.53 | 0.0212675 | 0.0131463 | 0.0715283 | 0.6580165 | 0.4067465 | 2.1798898 | 2.1798898 |
| 117 | 58:57.4 | 574282 | 6.35303E+12 | 5.6096E+13 | 5379.99 | 0.0212675 | 0.0178311 | 0.0715877 | 0.6580165 | 0.5516942 | 2.1816984 | 2.1816984 |
| 118 | 04:00.6 | 574283 | 6.35303E+12 | 5.56063E+13 | 5387.53 | 0.0232187 | 0.0178063 | 0.0723193 | 0.7183866 | 0.5509269 | 2.2039945 | 2.2039945 |
| 119 | 09:05.0 | 574283 | 6.35303E+12 | 5.56063E+13 | 5405.85 | 0.0232187 | 0.0198195 | 0.0725652 | 0.7183866 | 0.6132153 | 2.211489 | 2.211489 |
| 120 | 14:08.3 | 574283 | 6.35303E+12 | 5.56063E+13 | 5409.86 | 0.0232187 | 0.019659 | 0.072619 | 0.7183866 | 0.6082495 | 2.2131295 | 2.2131295 |
| 121 | 19:11.6 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.19 | 0.0232187 | 0.020979 | 0.0714585 | 0.7183866 | 0.6490903 | 2.1777626 | 2.1777626 |
| 122 | 24:14.7 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.3 | 0.0232187 | 0.0205583 | 0.07146 | 0.7183866 | 0.6360738 | 2.1778069 | 2.1778069 |
| 123 | 29:17.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5408.19 | 0.0232187 | 0.0200255 | 0.072366 | 0.7183866 | 0.6204244 | 2.2054203 | 2.2054203 |
| 124 | 34:20.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5406.02 | 0.0232187 | 0.0204614 | 0.072337 | 0.7183866 | 0.6330757 | 2.2045354 | 2.2045354 |
| 125 | 39:23.6 | 574285 | 6.35303E+12 | 5.57835E+13 | 5400.59 | 0.0232187 | 0.0195542 | 0.0722643 | 0.7183866 | 0.6050069 | 2.202321 | 2.202321 |
| 126 | 44:26.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.93 | 0.0232187 | 0.0203561 | 0.0722823 | 0.7183866 | 0.6298177 | 2.2028675 | 2.2028675 |
| 127 | 49:29.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.01 | 0.0232187 | 0.0200873 | 0.0723101 | 0.7183866 | 0.6215011 | 2.2037157 | 2.2037157 |
| 128 | 54:32.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.27 | 0.0232187 | 0.0203132 | 0.0722734 | 0.7183866 | 0.6284904 | 2.2025983 | 2.2025983 |
| 129 | 59:36.0 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0232187 | 0.0202868 | 0.0723309 | 0.7183866 | 0.6276736 | 2.2043478 | 2.2043478 |
| 130 | 04:39.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5407.94 | 0.0243161 | 0.0203594 | 0.0723627 | 0.7523401 | 0.6299198 | 2.2053183 | 2.2053183 |
| 131 | 09:42.2 | 574286 | 6.35303E+12 | 5.36818E+13 | 5415.78 | 0.0243161 | 0.0205197 | 0.0735047 | 0.7523401 | 0.6348795 | 2.2949778 | 2.2949778 |
| 132 | 14:45.4 | 574287 | 6.35303E+12 | 5.50908E+13 | 5406.57 | 0.0243161 | 0.0204524 | 0.0732539 | 0.7523401 | 0.6327973 | 2.2324797 | 2.2324797 |
| 133 | 19:48.6 | 574287 | 6.35303E+12 | 5.50908E+13 | 5390.94 | 0.0243161 | 0.0204571 | 0.0730422 | 0.7523401 | 0.6329427 | 2.2260258 | 2.2260258 |
| 134 | 24:51.7 | 574288 | 6.35303E+12 | 5.6446E+13 | 5374.99 | 0.0243161 | 0.0204895 | 0.0710776 | 0.7523401 | 0.6339451 | 2.1661531 | 2.1661531 |
| 135 | 29:54.9 | 574288 | 6.35303E+12 | 5.6446E+13 | 5391.07 | 0.0243161 | 0.020504 | 0.0712902 | 0.7523401 | 0.6343938 | 2.1726335 | 2.1726335 |
| 136 | 34:58.3 | 574289 | 6.35303E+12 | 5.61643E+13 | 5386.28 | 0.0243161 | 0.0215335 | 0.0715842 | 0.7523401 | 0.6662465 | 2.1815923 | 2.1815923 |
| 137 | 40:02.0 | 574289 | 6.35303E+12 | 5.61643E+13 | 5381.99 | 0.0243161 | 0.0216111 | 0.0715272 | 0.7523401 | 0.6686474 | 2.1798548 | 2.1798548 |
| 138 | 45:05.1 | 574289 | 6.35303E+12 | 5.61643E+13 | 5375.06 | 0.0243161 | 0.0210446 | 0.0714351 | 0.7523401 | 0.6511199 | 2.1770479 | 2.1770479 |
| 139 | 50:08.2 | 574290 | 6.35303E+12 | 5.56905E+13 | 5379.99 | 0.0243161 | 0.0216184 | 0.0721089 | 0.7523401 | 0.6688733 | 2.1975834 | 2.1975834 |
| 140 | 55:11.2 | 574292 | 6.35303E+12 | 5.59818E+13 | 5380.89 | 0.0243161 | 0.021687 | 0.0717456 | 0.7523401 | 0.6709958 | 2.1865119 | 2.1865119 |
| 141 | 00:14.3 | 574294 | 6.35303E+12 | 5.66874E+13 | 5378.02 | 0.0257744 | 0.0216429 | 0.0708148 | 0.7974599 | 0.6696313 | 2.1581456 | 2.1581456 |
| 142 | 05:17.2 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.0257744 | 0.0212776 | 0.0704165 | 0.7974599 | 0.6583289 | 2.1460054 | 2.1460054 |
| 143 | 10:20.9 | 574296 | 6.35303E+12 | 5.69506E+13 | 5391.26 | 0.0257744 | 0.0214204 | 0.0706661 | 0.7974599 | 0.6627472 | 2.1534583 | 2.1534583 |
| 144 | 15:24.1 | 574298 | 6.35303E+12 | 5.77593E+13 | 5389.31 | 0.0257744 | 0.0214204 | 0.0696465 | 0.7974599 | 0.6627472 | 2.1225393 | 2.1225393 |
| 145 | 20:27.3 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.39 | 0.0257744 | 0.0220102 | 0.0696346 | 0.7974599 | 0.6809956 | 2.122177 | 2.122177 |
| 146 | 25:31.0 | 574298 | 6.35303E+12 | 5.77593E+13 | 5393.64 | 0.0257744 | 0.025403 | 0.0697024 | 0.7974599 | 0.7859688 | 2.1242446 | 2.1242446 |
| 147 | 30:34.5 | 574299 | 6.35303E+12 | 5.69012E+13 | 5395.3 | 0.0257744 | 0.0261091 | 0.0707755 | 0.7974599 | 0.8078156 | 2.1569462 | 2.1569462 |
| 148 | 35:39.5 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.27 | 0.0257744 | 0.0257444 | 0.0698488 | 0.7974599 | 2.5818347 | 2.1287047 | 2.5818347 |
| 149 | 40:44.8 | 574301 | 6.35303E+12 | 5.7613E+13 | 5390.99 | 0.0257744 | 0.0218203 | 0.0698452 | 0.7974599 | 6.7512101 | 2.1285942 | 6.7512101 |
| 150 | 45:49.0 | 574302 | 6.35303E+12 | 5.77583E+13 | 5394.98 | 0.0257744 | 0.015508 | 0.069721 | 0.7974599 | 4.7981752 | 2.1284099 | 4.7981752 |
| 151 | 50:52.9 | 574302 | 6.35303E+12 | 5.77583E+13 | 5395.4 | 0.0257744 | 0.1766657 | 0.0697264 | 0.7974599 | 5.4660368 | 2.1249753 | 5.4660368 |
| 152 | 55:56.9 | 574304 | 6.35303E+12 | 5.7411E+13 | 5395.01 | 0.0257744 | 0.174439 | 0.0701432 | 0.7974599 | 5.3971427 | 2.1376776 | 5.3971427 |
| 153 | 01:01.0 | 574305 | 6.35303E+12 | 5.8471E+13 | 5392.45 | 0.0279426 | 0.02174554 | 0.0688389 | 0.864544 | 6.7280701 | 2.0979265 | 6.7280701 |
| 154 | 06:05.1 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.6 | 0.0279426 | 0.0374963 | 0.0688536 | 0.864544 | 1.160052 | 2.0983739 | 2.0983739 |
| 155 | 11:09.9 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.59 | 0.0279426 | 0.0279332 | 0.0688534 | 0.864544 | 0.8642532 | 2.09837 | 2.09837 |
| 156 | 16:13.3 | 574307 | 6.35303E+12 | 5.89967E+13 | 5393.1 | 0.0279426 | 0.0249637 | 0.0682337 | 0.864544 | 0.7723769 | 2.0794831 | 2.0794831 |
| 157 | 21:16.3 | 574309 | 6.35303E+12 | 6.00748E+13 | 5397.01 | 0.0279426 | 0.025771 | 0.0670578 | 0.864544 | 0.7973547 | 2.0436461 | 2.0436461 |
| 158 | 26:19.2 | 574310 | 6.35303E+12 | 6.02983E+13 | 5396.18 | 0.0279426 | 0.025585 | 0.066799 | 0.864544 | 0.7915999 | 2.035759 | 2.035759 |
| 159 | 31:22.5 | 574311 | 6.35303E+12 | 6.01255E+13 | 5399.99 | 0.0279426 | 0.0297997 | 0.0670382 | 0.864544 | 0.9220027 | 2.0430488 | 2.0430488 |
| 160 | 36:25.4 | 574311 | 6.35303E+12 | 6.01255E+13 | 5402.65 | 0.0279426 | 0.0297908 | 0.0670712 | 0.864544 | 0.9217274 | 2.0440552 | 2.0440552 |
| 161 | 41:28.4 | 574312 | 6.35303E+12 | 5.99055E+13 | 5397.01 | 0.0279426 | 0.0298367 | 0.0672472 | 0.864544 | 0.9231475 | 2.0494202 | 2.0494202 |
| 162 | 46:31.4 | 574312 | 6.35303E+12 | 5.99055E+13 | 5395.01 | 0.0279426 | 0.0256849 | 0.0672223 | 0.864544 | 0.7946908 | 2.0486608 | 2.0486608 |
| 163 | 51:34.4 | 574315 | 6.35303E+12 | 5.97623E+13 | 5393.25 | 0.0279426 | 0.0284134 | 0.0673615 | 0.864544 | 0.8791106 | 2.0529008 | 2.0529008 |
| 164 | 56:37.4 | 574315 | 6.35303E+12 | 5.97623E+13</ | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 08:04.2 | 574326 | 6.35303E+12 | 5.98016E+13 | 5400.27 | 0.0298595 | 0.0283365 | 0.0674048 | 0.9238529 | 0.8767313 | 2.0542223 | 2.0542223 |
| 191 | 13:10.1 | 574327 | 6.35303E+12 | 5.96067E+13 | 5403.01 | 0.0298595 | 0.0272184 | 0.0676595 | 0.9238529 | 0.8421373 | 2.0619836 | 2.0619836 |
| 192 | 18:13.1 | 574327 | 6.35303E+12 | 5.96067E+13 | 5402.55 | 0.0298595 | 0.0254796 | 0.0676537 | 0.9238529 | 0.7883388 | 2.061808 | 2.061808 |
| 193 | 23:16.5 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.49 | 0.0298595 | 0.026922 | 0.0676129 | 0.9238529 | 0.8329667 | 2.0605642 | 2.0605642 |
| 194 | 28:19.6 | 574328 | 6.35303E+12 | 5.96752E+13 | 5407.99 | 0.0298595 | 0.0266884 | 0.0676442 | 0.9238529 | 0.8257391 | 2.0615172 | 2.0615172 |
| 195 | 33:22.8 | 574329 | 6.35303E+12 | 5.94855E+13 | 5414.16 | 0.0298595 | 0.0268196 | 0.0679373 | 0.9238529 | 0.8297984 | 2.0704516 | 2.0704516 |
| 196 | 38:26.4 | 574330 | 6.35303E+12 | 5.97035E+13 | 5414.16 | 0.0298595 | 0.0268326 | 0.0676893 | 0.9238529 | 0.8302006 | 2.0628912 | 2.0628912 |
| 197 | 43:29.6 | 574331 | 6.35303E+12 | 5.96567E+13 | 5411.77 | 0.0298595 | 0.0255719 | 0.0677124 | 0.9238529 | 0.7911946 | 2.0635973 | 2.0635973 |
| 198 | 48:32.6 | 574332 | 6.35303E+12 | 5.93593E+13 | 5409.61 | 0.0298595 | 0.0266704 | 0.0680245 | 0.9238529 | 0.8251822 | 2.0731087 | 2.0731087 |
| 199 | 53:36.1 | 574333 | 6.35303E+12 | 5.9734E+13 | 5404.43 | 0.0298595 | 0.0266612 | 0.0675331 | 0.9238529 | 0.8248975 | 2.0581326 | 2.0581326 |
| 200 | 58:39.0 | 574334 | 6.35303E+12 | 5.92562E+13 | 5401.16 | 0.0298595 | 0.0269553 | 0.0680365 | 0.9238529 | 0.833997 | 2.0734727 | 2.0734727 |
| 201 | 03:42.1 | 574335 | 6.35303E+12 | 5.9018E+13 | 5401.4 | 0.028602 | 0.0279105 | 0.0683141 | 0.8849459 | 0.8635509 | 2.0819329 | 2.0819329 |
| 202 | 08:45.2 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.05 | 0.028602 | 0.0267242 | 0.068297 | 0.8849459 | 0.8268467 | 2.0814126 | 2.0814126 |
| 203 | 13:48.8 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.81 | 0.028602 | 0.0267657 | 0.0667358 | 0.8849459 | 0.8281308 | 2.0338321 | 2.0338321 |
| 204 | 18:51.7 | 574338 | 6.35303E+12 | 6.00814E+13 | 5403.9 | 0.028602 | 0.026525 | 0.067136 | 0.8849459 | 0.8206835 | 2.0460298 | 2.0460298 |
| 205 | 23:55.0 | 574341 | 6.35303E+12 | 6.05704E+13 | 5404.02 | 0.028602 | 0.026048 | 0.0665954 | 0.8849459 | 0.8059251 | 2.0295562 | 2.0295562 |
| 206 | 28:58.6 | 574342 | 6.35303E+12 | 6.0482E+13 | 5406.89 | 0.028602 | 0.0265109 | 0.0667282 | 0.8849459 | 0.8202472 | 2.0336015 | 2.0336015 |
| 207 | 34:01.7 | 574343 | 6.35303E+12 | 5.99395E+13 | 5402.19 | 0.028602 | 0.0255512 | 0.0672736 | 0.8849459 | 0.7905541 | 2.0502238 | 2.0502238 |
| 208 | 39:04.8 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.98 | 0.028602 | 0.0262086 | 0.0672461 | 0.8849459 | 0.8108941 | 2.0493851 | 2.0493851 |
| 209 | 44:07.8 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.028602 | 0.0260242 | 0.0676328 | 0.8849459 | 0.8051887 | 2.0611697 | 2.0611697 |
| 210 | 49:11.2 | 574344 | 6.35303E+12 | 5.95861E+13 | 5394.85 | 0.028602 | 0.0266401 | 0.0675807 | 0.8849459 | 0.8242447 | 2.0595816 | 2.0595816 |
| 211 | 54:14.4 | 574344 | 6.35303E+12 | 5.95861E+13 | 5401.23 | 0.028602 | 0.0260209 | 0.0676606 | 0.8849459 | 0.8050866 | 2.0620172 | 2.0620172 |
| 212 | 59:17.3 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.44 | 0.028602 | 0.0262469 | 0.0676256 | 0.8849459 | 0.8120791 | 2.0609521 | 2.0609521 |
| 213 | 04:21.4 | 574346 | 6.35303E+12 | 5.84022E+13 | 5394.51 | 0.0275993 | 0.0223023 | 0.0689463 | 0.8539223 | 0.69089732 | 2.1012014 | 2.1012014 |
| 214 | 09:27.4 | 574347 | 6.35303E+12 | 5.86008E+13 | 5390.6 | 0.0275993 | 0.0264187 | 0.0686629 | 0.8539223 | 0.8173946 | 2.0925629 | 2.0925629 |
| 215 | 14:30.5 | 574347 | 6.35303E+12 | 5.86008E+13 | 5397.94 | 0.0275993 | 0.0265111 | 0.0687564 | 0.8539223 | 0.8202534 | 2.0954122 | 2.0954122 |
| 216 | 19:33.5 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.99 | 0.0275993 | 0.0266306 | 0.0685905 | 0.8539223 | 0.8239508 | 2.0903567 | 2.0903567 |
| 217 | 24:36.5 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.21 | 0.0275993 | 0.0263818 | 0.0685806 | 0.8539223 | 0.8142789 | 2.0900545 | 2.0900545 |
| 218 | 29:41.0 | 574349 | 6.35303E+12 | 5.84595E+13 | 5396.31 | 0.0275993 | 0.0222834 | 0.0689017 | 0.8539223 | 0.6774484 | 2.0998406 | 2.0998406 |
| 219 | 34:45.8 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.07 | 0.0275993 | 0.0360181 | 0.0681086 | 0.8539223 | 1.1144093 | 2.07567 | 2.07567 |
| 220 | 39:49.9 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.47 | 0.0275993 | 0.026792 | 0.0681136 | 0.8539223 | 0.8289445 | 2.0758239 | 2.0758239 |
| 221 | 44:54.1 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.05 | 0.0275993 | 0.0245607 | 0.0679657 | 0.8539223 | 0.7599081 | 2.0713145 | 2.0713145 |
| 222 | 49:58.3 | 574351 | 6.35303E+12 | 5.92508E+13 | 5393.06 | 0.0275993 | 0.0251914 | 0.0679406 | 0.8539223 | 0.7794219 | 2.0705505 | 2.0705505 |
| 223 | 55:03.7 | 574351 | 6.35303E+12 | 5.92508E+13 | 5391.73 | 0.0275993 | 0.0244349 | 0.0679238 | 0.8539223 | 0.7560158 | 2.0700399 | 2.0700399 |
| 224 | 00:06.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5391.02 | 0.0287438 | 0.0246767 | 0.0679149 | 0.8893332 | 0.7634971 | 2.0697673 | 2.0697673 |
| 225 | 05:09.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5365.12 | 0.0287438 | 0.0247456 | 0.0675886 | 0.8893332 | 0.7656289 | 2.0598235 | 2.0598235 |
| 226 | 10:12.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.89 | 0.0287438 | 0.0222708 | 0.0676739 | 0.8893332 | 0.6890586 | 2.0624227 | 2.0624227 |
| 227 | 15:16.2 | 574351 | 6.35303E+12 | 5.92508E+13 | 5379.7 | 0.0287438 | 0.0239242 | 0.0677723 | 0.8893332 | 0.7402147 | 2.0654212 | 2.0654212 |
| 228 | 20:19.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5378.3 | 0.0287438 | 0.0226519 | 0.0674322 | 0.8893332 | 0.7008498 | 2.0550568 | 2.0550568 |
| 229 | 25:22.4 | 574353 | 6.35303E+12 | 5.95341E+13 | 5381.03 | 0.0287438 | 0.0245188 | 0.0674664 | 0.8893332 | 0.7586117 | 2.0560999 | 2.0560999 |
| 230 | 30:25.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5392.25 | 0.0287438 | 0.024939 | 0.0676071 | 0.8893332 | 0.7716127 | 2.0603871 | 2.0603871 |
| 231 | 35:29.0 | 574353 | 6.35303E+12 | 5.95341E+13 | 5394.16 | 0.0287438 | 0.0248882 | 0.067631 | 0.8893332 | 0.7700409 | 2.0611169 | 2.0611169 |
| 232 | 40:32.2 | 574353 | 6.35303E+12 | 5.95341E+13 | 5399.99 | 0.0287438 | 0.0245713 | 0.0677041 | 0.8893332 | 0.7602422 | 2.0633446 | 2.0633446 |
| 233 | 45:35.1 | 574355 | 6.35303E+12 | 6.01266E+13 | 5396.88 | 0.0287438 | 0.0230276 | 0.0669983 | 0.8893332 | 0.7124739 | 2.0418346 | 2.0418346 |
| 234 | 50:38.3 | 574356 | 6.35303E+12 | 6.01278E+13 | 5394.77 | 0.0287438 | 0.0244562 | 0.0669709 | 0.8893332 | 0.7566748 | 2.0409989 | 2.0409989 |
| 235 | 55:42.0 | 574356 | 6.35303E+12 | 6.01278E+13 | 5402.4 | 0.0287438 | 0.0216672 | 0.0670656 | 0.8893332 | 0.6703832 | 2.0438855 | 2.0438855 |
| 236 | 00:45.1 | 574357 | 6.35303E+12 | 5.98782E+13 | 5408.98 | 0.0349099 | 0.0215151 | 0.0674272 | 1.0801123 | 0.6657019 | 2.0549051 | 2.0549051 |
| 237 | 05:48.5 | 574357 | 6.35303E+12 | 5.98782E+13 | 5415.88 | 0.0349099 | 0.021311 | 0.0675132 | 1.0801123 | 0.6593623 | 2.0575264 | 2.0575264 |
| 238 | 10:51.8 | 574359 | 6.35303E+12 | 5.99023E+13 | 5413.47 | 0.0349099 | 0.0215195 | 0.067456 | 1.0801123 | 0.6658133 | 2.0557835 | 2.0557835 |
| 239 | 15:54.9 | 574359 | 6.35303E+12 | 5.99023E+13 | 5409.99 | 0.0349099 | 0.0216145 | 0.0674127 | 1.0801123 | 0.6687526 | 2.0544619 | 2.0544619 |
| 240 | 20:57.9 | 574360 | 6.35303E+12 | 6.0023E+13 | 5408.83 | 0.0349099 | 0.0224358 | 0.0672626 | 1.0801123 | 0.6941637 | 2.049888 | 2.049888 |
| 241 | 26:01.1 | 574360 | 6.35303E+12 | 6.0023E+13 | 5402.81 | 0.0349099 | 0.0221931 | 0.0671877 | 1.0801123 | 0.6866545 | 2.0476064 | 2.0476064 |
| 242 | 31:04.4 | 574361 | 6.35303E+12 | 5.95038E+13 | 5407.93 | 0.0349099 | 0.024178 | 0.0678382 | 1.0801123 | 0.7480673 | 2.0674304 | 2.0674304 |
| 243 | 36:08.0 | 574361 | 6.35303E+12 | 5.95038E+13 | 5411.14 | 0.0349099 | 0.0353979 | 0.0678785 | 1.0801123 | 1.095211 | 2.0686576 | 2.0686576 |
| 244 | 41:11.6 | 574362 | 6.35303E+12 | 5.87448E+13 | 5422.09 | 0.0349099 | 0.0235493 | 0.0668946 | 1.0801123 | 0.7286153 | 2.0996263 | 2.0996263 |
| 245 | 46:14.8 | 574362 | 6.35303E+12 | 5.87448E+13 | 5435.74 | 0.0349099 | 0.0221814 | 0.0690681 | 1.0801123 | 0.6862925 | 2.1049121 | 2.1049121 |
| 246 | 51:17.9 | 574362 | 6.35303E+12 | 5.87448E+13 | 5435.55 | 0.0349099 | 0.0237741 | 0.0690657 | 1.0801123 | 0.7355507 | 2.1048385 | 2.1048385 |
| 247 | 56:21.6 | 574363 | 6.35303E+12 | 5.80502E+13 | 5427.15 | 0.0349099 | 0.032206 | 0.0697841 | 1.0801123 | 0.9964536 | 2.1267343 | 2.1267343 |
| 248 | 01:24.7 | 574363 | 6.35303E+12 | 5.80502E+13 | 5428.1 | 0.0262015 | 0.0475413 | 0.0697964 | 0.8106744 | 1.4709278 | 2.1271066 | 2.1271066 |
| 249 | 06:27.9 | 574364 | 6.35303E+12 | 5.78645E+13 | 5441.31 | 0.0262015 | 0.0428348 | 0.0701907 | 0.8106744 | 1.3253087 | 2.1391255 | 2.1391255 |
| 250 | 11:31.0 | 574364 | 6.35303E+12 | 5.78645E+13 | 5428.95 | 0.0262015 | 0.0240695 | 0.0700313 | 0.8106744 | 0.7455457 | 2.1342664 | 2.1342664 |
| 251 | 16:33.9 | 574367 | 6.35303E+12 | 5.84533E+13 | 5433.35 | 0.0262015 | 0.0244572 | 0.069382 | 0.8106744 | 0.7567058 | 2.1144803 | 2.1144803 |
| 252 | 21:38.4 | 574367 | 6.35303E+12 | 5.84533E+13 | 5439.23 | 0.0262015 | 0.022965 | 0.0694571 | 0.8106744 | 0.7105371 | 2.1167686 | 2.1167686 |
| 253 | 26:41.8 | 574368 | 6.35303E+12 | 5.81378E+13 | 5433.99 | 0.0262015 | 0.0212901 | 0.0697668 | 0.8106744 | 0.6587157 | 2.1262058 | 2.1262058 |
| 254 | 31:45.4 | 574368 | 6.35303E+12 | 5.81378E+13 | 5446.09 | 0.0262015 | 0.0209847 | 0.0699221 | 0.8106744 | 0.6492697 | 2.1309403 | 2.1309403 |
| 255 | 36:48.4 | 574369 | 6.35303E+12 | 5.7527E+13 | 5440.51 | 0.0262015 | 0.0204925 | 0.0705922 | 0.8106744 | 0.634038 | 2.1513595 | 2.1513595 |
| 256 | 41:51.9 | 574370 | 6.35303E+12 | 5.73316E+13 | 5442.44 | 0.0262015 | 0.0198587 | 0.0708579 | 0.8106744 | 0.6144282 | 2.1594579 | 2.1594579 |
| 257 | 46:55.1 | 574370 | 6.35303E+12 | 5.73316E+13 | 5449.99 | 0.0262015 | 0.0197845 | 0.0709562 | 0.8106744 | 0.6121324 | 2.1624536 | 2.1624536 |
| 258 | 51:58.4 | 574370 | 6.35 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 284 | 03:51.1 | 574388 | 6.35030E+12 | 5.41076E+13 | 5493.27 | 0.0165491 | 0.0183691 | 0.0757811 | 0.5120292 | 0.56834 | 2.3094963 | 2.3094963 |
| 285 | 08:54.1 | 574388 | 6.35030E+12 | 5.41076E+13 | 5497.61 | 0.0165491 | 0.0183647 | 0.0758409 | 0.5120292 | 0.5682038 | 2.311321 | 2.311321 |
| 286 | 13:57.4 | 574390 | 6.35030E+12 | 5.36713E+13 | 5491.93 | 0.0165491 | 0.0183675 | 0.0763785 | 0.5120292 | 0.5682843 | 2.3277048 | 2.3277048 |
| 287 | 19:00.7 | 574393 | 6.35030E+12 | 5.4543E+13 | 5502.77 | 0.0165491 | 0.0188417 | 0.0753062 | 0.5120292 | 0.5829622 | 2.2950255 | 2.2950255 |
| 288 | 24:04.5 | 574393 | 6.35030E+12 | 5.4543E+13 | 5525.72 | 0.0165491 | 0.0193995 | 0.0756203 | 0.5120292 | 0.6002205 | 2.3045972 | 2.3045972 |
| 289 | 29:07.6 | 574393 | 6.35030E+12 | 5.4543E+13 | 5538.58 | 0.0165491 | 0.0193609 | 0.0757963 | 0.5120292 | 0.5990262 | 2.3099607 | 2.3099607 |
| 290 | 34:10.9 | 574393 | 6.35030E+12 | 5.4543E+13 | 5548.77 | 0.0165491 | 0.019547 | 0.0759358 | 0.5120292 | 0.6047842 | 2.3142106 | 2.3142106 |
| 291 | 39:14.1 | 574394 | 6.35030E+12 | 5.38779E+13 | 5544.99 | 0.0165491 | 0.0195134 | 0.0768207 | 0.5120292 | 0.6037446 | 2.3411795 | 2.3411795 |
| 292 | 44:17.1 | 574395 | 6.35030E+12 | 5.53825E+13 | 5512.91 | 0.0165491 | 0.0198083 | 0.0743014 | 0.5120292 | 0.6128688 | 2.2644017 | 2.2644017 |
| 293 | 49:20.1 | 574395 | 6.35030E+12 | 5.53825E+13 | 5524.53 | 0.0165491 | 0.0195139 | 0.074458 | 0.5120292 | 0.604317 | 2.2691746 | 2.2691746 |
| 294 | 54:23.3 | 574395 | 6.35030E+12 | 5.53825E+13 | 5525.3 | 0.0165491 | 0.01959 | 0.0744684 | 0.5120292 | 0.6061146 | 2.2694909 | 2.2694909 |
| 295 | 59:26.3 | 574395 | 6.35030E+12 | 5.53825E+13 | 5519.06 | 0.0165491 | 0.0192502 | 0.0743843 | 0.5120292 | 0.5956012 | 2.2669278 | 2.2669278 |
| 296 | 04:29.4 | 574395 | 6.35030E+12 | 5.53825E+13 | 5533.7 | 0.0172292 | 0.0192508 | 0.0745816 | 0.5330714 | 0.5956198 | 2.2729411 | 2.2729411 |
| 297 | 09:32.4 | 574395 | 6.35030E+12 | 5.53825E+13 | 5530.29 | 0.0172292 | 0.0191812 | 0.0745356 | 0.5330714 | 0.5934663 | 2.2715405 | 2.2715405 |
| 298 | 14:35.9 | 574396 | 6.35030E+12 | 5.44713E+13 | 5534.64 | 0.0172292 | 0.0190064 | 0.0758421 | 0.5330714 | 0.588058 | 2.3113551 | 2.3113551 |
| 299 | 19:39.0 | 574396 | 6.35030E+12 | 5.44713E+13 | 5544.31 | 0.0172292 | 0.0189667 | 0.0759746 | 0.5330714 | 0.5868297 | 2.3153934 | 2.3153934 |
| 300 | 24:42.5 | 574396 | 6.35030E+12 | 5.44713E+13 | 5549.76 | 0.0172292 | 0.0190067 | 0.0760493 | 0.5330714 | 0.5880673 | 2.3176694 | 2.3176694 |
| 301 | 29:46.0 | 574397 | 6.35030E+12 | 5.38389E+13 | 5535.92 | 0.0172292 | 0.0190806 | 0.0767506 | 0.5330714 | 0.5903538 | 2.3390422 | 2.3390422 |
| 302 | 34:48.9 | 574397 | 6.35030E+12 | 5.38389E+13 | 5548.11 | 0.0172292 | 0.0187167 | 0.0769196 | 0.5330714 | 0.5790947 | 2.3441927 | 2.3441927 |
| 303 | 39:52.5 | 574397 | 6.35030E+12 | 5.38389E+13 | 5576.84 | 0.0172292 | 0.0189742 | 0.0773179 | 0.5330714 | 0.5870617 | 2.3563317 | 2.3563317 |
| 304 | 44:55.6 | 574397 | 6.35030E+12 | 5.38389E+13 | 5588.49 | 0.0172292 | 0.0188554 | 0.0774794 | 0.5330714 | 0.5833861 | 2.3612541 | 2.3612541 |
| 305 | 49:58.8 | 574397 | 6.35030E+12 | 5.38389E+13 | 5580.14 | 0.0172292 | 0.0189482 | 0.0773636 | 0.5330714 | 0.5862573 | 2.3577261 | 2.3577261 |
| 306 | 55:01.8 | 574397 | 6.35030E+12 | 5.38389E+13 | 5586.36 | 0.0172292 | 0.019429 | 0.0774499 | 0.5330714 | 0.6006351 | 2.3603541 | 2.3603541 |
| 307 | 00:05.2 | 574398 | 6.35030E+12 | 5.24135E+13 | 5582.24 | 0.0174125 | 0.0194554 | 0.0794975 | 0.5387428 | 0.6019501 | 2.422758 | 2.422758 |
| 308 | 05:09.1 | 574399 | 6.35030E+12 | 5.22154E+13 | 5575.01 | 0.0174125 | 0.019729 | 0.0796957 | 0.5387428 | 0.6123923 | 2.4287994 | 2.4287994 |
| 309 | 10:12.1 | 574400 | 6.35030E+12 | 5.19602E+13 | 5555.62 | 0.0174125 | 0.0199592 | 0.0798086 | 0.5387428 | 0.6175376 | 2.4322397 | 2.4322397 |
| 310 | 15:15.6 | 574400 | 6.35030E+12 | 5.19602E+13 | 5578.34 | 0.0174125 | 0.0198711 | 0.080135 | 0.5387428 | 0.6148118 | 2.4421865 | 2.4421865 |
| 311 | 20:18.5 | 574400 | 6.35030E+12 | 5.19602E+13 | 5579.19 | 0.0174125 | 0.0198617 | 0.0801472 | 0.5387428 | 0.614521 | 2.4425586 | 2.4425586 |
| 312 | 25:21.5 | 574401 | 6.35030E+12 | 5.14241E+13 | 5571.72 | 0.0174125 | 0.0200228 | 0.0808744 | 0.5387428 | 0.6195054 | 2.4647197 | 2.4647197 |
| 313 | 30:24.5 | 574401 | 6.35030E+12 | 5.14241E+13 | 5570.27 | 0.0174125 | 0.0199827 | 0.0808533 | 0.5387428 | 0.6182647 | 2.4640783 | 2.4640783 |
| 314 | 35:27.4 | 574402 | 6.35030E+12 | 5.15991E+13 | 5586.79 | 0.0174125 | 0.0207606 | 0.080818 | 0.5387428 | 0.642333 | 2.4630024 | 2.4630024 |
| 315 | 40:30.4 | 574403 | 6.35030E+12 | 5.16659E+13 | 5618.48 | 0.0174125 | 0.0202118 | 0.0811714 | 0.5387428 | 0.6256625 | 2.4737726 | 2.4737726 |
| 316 | 45:33.7 | 574404 | 6.35030E+12 | 5.22163E+13 | 5610.56 | 0.0174125 | 0.0221828 | 0.0802027 | 0.5387428 | 0.6863358 | 2.444248 | 2.444248 |
| 317 | 50:36.6 | 574405 | 6.35030E+12 | 5.26766E+13 | 5659.03 | 0.0174125 | 0.0202739 | 0.0801886 | 0.5387428 | 0.6272745 | 2.4438195 | 2.4438195 |
| 318 | 55:39.5 | 574406 | 6.35030E+12 | 5.44332E+13 | 5660.39 | 0.0174125 | 0.0201747 | 0.0776194 | 0.5387428 | 0.6242052 | 2.365522 | 2.365522 |
| 319 | 00:42.4 | 574407 | 6.35030E+12 | 5.44179E+13 | 5674.28 | 0.0182174 | 0.0190667 | 0.0778319 | 0.5636464 | 0.5899237 | 2.3719968 | 2.3719968 |
| 320 | 05:45.2 | 574408 | 6.35030E+12 | 5.43366E+13 | 5665.31 | 0.0182174 | 0.0196868 | 0.0778251 | 0.5636464 | 0.6091653 | 2.3717894 | 2.3717894 |
| 321 | 10:47.9 | 574408 | 6.35030E+12 | 5.43366E+13 | 5669.02 | 0.0182174 | 0.0199558 | 0.077876 | 0.5636464 | 0.6174325 | 2.3733426 | 2.3733426 |
| 322 | 15:50.8 | 574409 | 6.35030E+12 | 5.45039E+13 | 5707.81 | 0.0182174 | 0.0201714 | 0.0781682 | 0.5636464 | 0.6241031 | 2.3822461 | 2.3822461 |
| 323 | 20:53.8 | 574409 | 6.35030E+12 | 5.45039E+13 | 5687.02 | 0.0182174 | 0.0225138 | 0.0778835 | 0.5636464 | 0.696577 | 2.3735691 | 2.3735691 |
| 324 | 25:56.9 | 574410 | 6.35030E+12 | 5.4739E+13 | 5681.9 | 0.0182174 | 0.0207126 | 0.0774792 | 0.5636464 | 0.6408478 | 2.3612479 | 2.3612479 |
| 325 | 30:03.0 | 574410 | 6.35030E+12 | 5.4739E+13 | 5722.07 | 0.0182174 | 0.0216808 | 0.0780269 | 0.5636464 | 0.670804 | 2.3779415 | 2.3779415 |
| 326 | 41:06.3 | 574410 | 6.35030E+12 | 5.4739E+13 | 5722.31 | 0.0182174 | 0.0214058 | 0.0780302 | 0.5636464 | 0.6622955 | 2.3780413 | 2.3780413 |
| 327 | 46:09.6 | 574410 | 6.35030E+12 | 5.4739E+13 | 5758.38 | 0.0182174 | 0.0229584 | 0.0785221 | 0.5636464 | 0.7103329 | 2.393031 | 2.393031 |
| 328 | 51:12.9 | 574410 | 6.35030E+12 | 5.4739E+13 | 5752.53 | 0.0182174 | 0.0234792 | 0.0784423 | 0.5636464 | 0.7264464 | 2.3905999 | 2.3905999 |
| 329 | 01:18.1 | 574412 | 6.35030E+12 | 5.33495E+13 | 5778.34 | 0.0231716 | 0.024996 | 0.0808465 | 0.7169293 | 0.7733762 | 2.46387 | 2.46387 |
| 330 | 06:21.2 | 574412 | 6.35030E+12 | 5.33495E+13 | 5720.48 | 0.0231716 | 0.0224302 | 0.080037 | 0.7169293 | 0.6939904 | 2.4391986 | 2.4391986 |
| 331 | 11:24.7 | 574412 | 6.35030E+12 | 5.33495E+13 | 5706.21 | 0.0231716 | 0.0232405 | 0.0798373 | 0.7169293 | 0.7190611 | 2.4331139 | 2.4331139 |
| 332 | 16:27.6 | 574413 | 6.35030E+12 | 5.25253E+13 | 5710.17 | 0.0231716 | 0.0234349 | 0.0811462 | 0.7169293 | 0.7250578 | 2.4730049 | 2.4730049 |
| 333 | 21:30.3 | 574413 | 6.35030E+12 | 5.25253E+13 | 5738.9 | 0.0231716 | 0.0220916 | 0.0815545 | 0.7169293 | 0.6835141 | 2.4854476 | 2.4854476 |
| 334 | 26:33.4 | 574413 | 6.35030E+12 | 5.25253E+13 | 5729.99 | 0.0231716 | 0.0254117 | 0.0814279 | 0.7169293 | 0.786238 | 2.4815887 | 2.4815887 |
| 335 | 31:36.2 | 574414 | 6.35030E+12 | 5.19701E+13 | 5734.45 | 0.0231716 | 0.0252112 | 0.0823619 | 0.7169293 | 0.7800345 | 2.5100531 | 2.5100531 |
| 336 | 36:39.1 | 574414 | 6.35030E+12 | 5.19701E+13 | 5744.82 | 0.0231716 | 0.025471 | 0.0825108 | 0.7169293 | 0.7880727 | 2.5145922 | 2.5145922 |
| 337 | 41:41.9 | 574416 | 6.35030E+12 | 5.19215E+13 | 5727.38 | 0.0231716 | 0.0253676 | 0.0823374 | 0.7169293 | 0.7848735 | 2.509306 | 2.509306 |
| 338 | 46:44.7 | 574418 | 6.35030E+12 | 5.19586E+13 | 5734.35 | 0.0231716 | 0.02236 | 0.0823788 | 0.7169293 | 0.6918184 | 2.510567 | 2.510567 |
| 339 | 51:47.4 | 574420 | 6.35030E+12 | 5.25895E+13 | 5719.9 | 0.0231716 | 0.0361412 | 0.0811854 | 0.7169293 | 1.1182087 | 2.4741988 | 2.4741988 |
| 340 | 56:50.2 | 574421 | 6.35030E+12 | 5.25734E+13 | 5661.86 | 0.0231716 | 0.0233862 | 0.0803862 | 0.7169293 | 0.723569 | 2.4498404 | 2.4498404 |
| 341 | 01:53.1 | 574421 | 6.35030E+12 | 5.25734E+13 | 5685.95 | 0.0265606 | 0.0218135 | 0.0807282 | 0.821785 | 0.6749097 | 2.4602639 | 2.4602639 |
| 342 | 06:56.0 | 574423 | 6.35030E+12 | 5.29406E+13 | 5678.18 | 0.0265606 | 0.0217023 | 0.0800587 | 0.821785 | 0.6714692 | 2.4398604 | 2.4398604 |
| 343 | 11:59.2 | 574424 | 6.35030E+12 | 5.28202E+13 | 5698.16 | 0.0265606 | 0.0217781 | 0.0805235 | 0.821785 | 0.6738144 | 2.4540273 | 2.4540273 |
| 344 | 17:02.4 | 574424 | 6.35030E+12 | 5.28202E+13 | 5677.65 | 0.0265606 | 0.028073 | 0.0802337 | 0.821785 | 0.8685786 | 2.4451943 | 2.4451943 |
| 345 | 22:05.3 | 574426 | 6.35030E+12 | 5.30049E+13 | 5685.84 | 0.0265606 | 0.0482239 | 0.0806095 | 0.821785 | 1.4920475 | 2.4401892 | 2.4401892 |
| 346 | 27:09.9 | 574426 | 6.35030E+12 | 5.30049E+13 | 5681.85 | 0.0265606 | 0.0235591 | 0.0800133 | 0.821785 | 7.2891886 | 2.4384768 | 2.2891886 |
| 347 | 32:14.0 | 574427 | 6.35030E+12 | 5.28466E+13 | 5686.85 | 0.0265606 | 0.0228130 | 0.0803235 | 0.821785 | 7.058367 | 2.4479317 | 7.058367 |
| 348 | 37:18.6 | 574427 | 6.35030E+12 | 5.28466E+13 | 5693.47 | 0.0265606 | 0.0487972 | 0.080417 | 0.821785 | 1.5097854 | 2.4507813 | 2.4507813 |
| 349 | 42:21.3 | 574428 | 6.35030E+12 | 5.2354E+13 | 5717.6 | 0.0265606 | 0.0277079 | 0.0815177 | 0.821785 | 0.8572824 | 2.4843261 | 2.4843261 |
| 350 | 47:24.0 | 574428 | 6.35030E+12 | 5.2354E+13 | 5722.32 | 0.0265606 | 0.0280138 | 0.081585 | 0.821785 | 0.866747 | 2.4863769 | 2.4863769 |
| 351 | 52:27.1 | 574428 | 6.35030E+12 | 5.2354E+13 | 5715.88 | 0.0265606 | 0.028221 | 0.0814932 | 0.821785 | 0.8731577 | 2.4835787 | 2.4835787 |
| 352 | 57:29.7 | 574429 | 6.35030E+12 | 5.15634E+13 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 08:47.3 | 574443 | 6.35303E+12 | 5.28228E+13 | 5746.65 | 0.0298497 | 0.0244251 | 0.0812048 | 0.9235497 | 0.7557126 | 2.4747908 | 2.4747908 |
| 379 | 13:50.5 | 574443 | 6.35303E+12 | 5.28228E+13 | 5760.39 | 0.0298497 | 0.0246582 | 0.081399 | 0.9235497 | 0.7629247 | 2.4807079 | 2.4807079 |
| 380 | 18:53.5 | 574443 | 6.35303E+12 | 5.28228E+13 | 5759.7 | 0.0298497 | 0.0249722 | 0.0813893 | 0.9235497 | 0.7726399 | 2.4804107 | 2.4804107 |
| 381 | 23:57.3 | 574444 | 6.35303E+12 | 5.21447E+13 | 5763.19 | 0.0298497 | 0.0248231 | 0.0824975 | 0.9235497 | 0.7680267 | 2.5141848 | 2.5141848 |
| 382 | 29:00.1 | 574445 | 6.35303E+12 | 5.19166E+13 | 5756.99 | 0.0298497 | 0.0277305 | 0.0827709 | 0.9235497 | 0.8579817 | 2.5225189 | 2.5225189 |
| 383 | 34:03.0 | 574446 | 6.35303E+12 | 5.17083E+13 | 5752.55 | 0.0298497 | 0.0341344 | 0.0830402 | 0.9235497 | 1.0561183 | 2.5307244 | 2.5307244 |
| 384 | 44:08.1 | 574446 | 6.35303E+12 | 5.17083E+13 | 5759.01 | 0.0298497 | 0.026299 | 0.0831334 | 0.9235497 | 0.8136911 | 2.5335664 | 2.5335664 |
| 385 | 49:11.1 | 574447 | 6.35303E+12 | 5.14685E+13 | 5756.94 | 0.0298497 | 0.0264755 | 0.0834907 | 0.9235497 | 0.819152 | 2.5444543 | 2.5444543 |
| 386 | 54:14.3 | 574448 | 6.35303E+12 | 5.19511E+13 | 5733.43 | 0.0298497 | 0.0263969 | 0.0823773 | 0.9235497 | 0.8167201 | 2.5105227 | 2.5105227 |
| 387 | 59:17.3 | 574448 | 6.35303E+12 | 5.19511E+13 | 5719.45 | 0.0298497 | 0.0296594 | 0.0821764 | 0.9235497 | 0.9176618 | 2.5044012 | 2.5044012 |
| 388 | 04:20.5 | 574448 | 6.35303E+12 | 5.19511E+13 | 5694.51 | 0.0289776 | 0.0266675 | 0.0818181 | 0.8965669 | 0.8250925 | 2.4934806 | 2.4934806 |
| 389 | 09:23.7 | 574449 | 6.35303E+12 | 5.17328E+13 | 5699.65 | 0.0289776 | 0.0248567 | 0.0822376 | 0.8965669 | 0.7690663 | 2.5062642 | 2.5062642 |
| 390 | 14:27.2 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.01 | 0.0289776 | 0.0254265 | 0.0825556 | 0.8965669 | 0.7866959 | 2.5159564 | 2.5159564 |
| 391 | 19:30.0 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.01 | 0.0289776 | 0.0257899 | 0.0825556 | 0.8965669 | 0.7979395 | 2.5159564 | 2.5159564 |
| 392 | 24:33.5 | 574450 | 6.35303E+12 | 5.16724E+13 | 5711.26 | 0.0289776 | 0.0254494 | 0.0825014 | 0.8965669 | 0.7874044 | 2.5143055 | 2.5143055 |
| 393 | 29:36.5 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.49 | 0.0289776 | 0.0255463 | 0.0826348 | 0.8965669 | 0.7904025 | 2.5183689 | 2.5183689 |
| 394 | 34:39.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5725.31 | 0.0289776 | 0.0252955 | 0.0827044 | 0.8965669 | 0.7826428 | 2.5204908 | 2.5204908 |
| 395 | 39:42.4 | 574452 | 6.35303E+12 | 5.09821E+13 | 5725.01 | 0.0289776 | 0.0258846 | 0.0838198 | 0.8965669 | 0.8008695 | 2.5544843 | 2.5544843 |
| 396 | 44:46.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.05 | 0.0289776 | 0.0259942 | 0.0833155 | 0.8965669 | 0.8042605 | 2.5391139 | 2.5391139 |
| 397 | 49:49.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5706.05 | 0.0289776 | 0.0248507 | 0.0831988 | 0.8965669 | 0.7688807 | 2.535559 | 2.535559 |
| 398 | 54:52.5 | 574454 | 6.35303E+12 | 5.11925E+13 | 5709.99 | 0.0289776 | 0.0240952 | 0.0832563 | 0.8965669 | 0.7455055 | 2.5373098 | 2.5373098 |
| 399 | 59:55.4 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.98 | 0.0289776 | 0.0237491 | 0.083329 | 0.8965669 | 0.7347972 | 2.5395272 | 2.5395272 |
| 400 | 04:58.3 | 574454 | 6.35303E+12 | 5.11925E+13 | 5715.01 | 0.0314491 | 0.0249024 | 0.0833295 | 0.9730352 | 0.7704803 | 2.5395405 | 2.5395405 |
| 401 | 10:01.4 | 574454 | 6.35303E+12 | 5.11925E+13 | 5705.02 | 0.0314491 | 0.0238843 | 0.0831838 | 0.9730352 | 0.7389802 | 2.5351013 | 2.5351013 |

Bearbox v Lancium
Trial Exhibit
TX920-2

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 20:03.1 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.02 | 0.0062116 | 0.0053108 | 0.0737658 | 0.1921869 | 0.1643162 | 2.2480786 | 2.2480786 |
| 3 | 25:07.0 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.0062116 | 0.0063954 | 0.0737656 | 0.1921869 | 0.1978737 | 2.2480744 | 2.2480744 |
| 4 | 30:10.6 | 574204 | 6.35303E+12 | 5.38327E+13 | 5319.98 | 0.0062116 | 0.0064769 | 0.0737652 | 0.1921869 | 0.2003953 | 2.2480617 | 2.2480617 |
| 5 | 35:13.6 | 574205 | 6.35303E+12 | 5.30839E+13 | 5325.25 | 0.0062116 | 0.0050178 | 0.0748799 | 0.1921869 | 0.1552507 | 2.2820313 | 2.2820313 |
| 6 | 40:16.4 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.94 | 0.0062116 | 0.0038182 | 0.0748333 | 0.1921869 | 0.1181351 | 2.2806129 | 2.2806129 |
| 7 | 45:19.2 | 574206 | 6.35303E+12 | 5.44532E+13 | 5326.51 | 0.0062116 | 0.0054266 | 0.0730143 | 0.1921869 | 0.167899 | 2.2251767 | 2.2251767 |
| 8 | 50:22.3 | 574206 | 6.35303E+12 | 5.44532E+13 | 5326.54 | 0.0062116 | 0.0076717 | 0.0730147 | 0.1921869 | 0.2373624 | 2.2251893 | 2.2251893 |
| 9 | 55:26.0 | 574207 | 6.35303E+12 | 5.39845E+13 | 5328.24 | 0.0062116 | 0.0011776 | 0.0736721 | 0.1921869 | 0.0364349 | 2.2452223 | 2.2452223 |
| 10 | 00:29.0 | 574207 | 6.35303E+12 | 5.39845E+13 | 5325.77 | 0.0011643 | 0.0027475 | 0.0736379 | 0.0360234 | 0.0850077 | 2.2441815 | 2.2441815 |
| 11 | 05:31.8 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.77 | 0.0011643 | -0.003174 | 0.0743518 | 0.0360234 | -0.1026373 | 2.2659373 | 2.2659373 |
| 12 | 10:34.6 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0011643 | -0.008352 | 0.0743412 | 0.0360234 | -0.2584109 | 2.2656139 | 2.2656139 |
| 13 | 15:37.4 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0011643 | 0.0010002 | 0.0744503 | 0.0360234 | 0.0309462 | 2.2689395 | 2.2689395 |
| 14 | 20:40.3 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0011643 | 0.001291 | 0.0744503 | 0.0360234 | 0.0399435 | 2.2689395 | 2.2689395 |
| 15 | 25:43.5 | 574210 | 6.35303E+12 | 5.36221E+13 | 5326.26 | 0.0011643 | -0.0191129 | 0.0741425 | 0.0360234 | -0.5913531 | 2.2595592 | 2.2595592 |
| 16 | 30:46.5 | 574212 | 6.35303E+12 | 5.54528E+13 | 5327.73 | 0.0011643 | -0.0318014 | 0.0717145 | 0.0360234 | -0.9839353 | 2.1855639 | 2.1855639 |
| 17 | 35:49.4 | 574213 | 6.35303E+12 | 5.51131E+13 | 5321.02 | 0.0011643 | -0.0309552 | 0.0720657 | 0.0360234 | -0.9577539 | 2.1962672 | 2.1962672 |
| 18 | 40:52.8 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0011643 | -0.0303368 | 0.0711001 | 0.0360234 | -0.9386206 | 2.1668382 | 2.1668382 |
| 19 | 45:56.2 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0011643 | -0.0268603 | 0.0711001 | 0.0360234 | -0.8310577 | 2.1668382 | 2.1668382 |
| 20 | 50:59.1 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.69 | 0.0011643 | -0.0314096 | 0.071148 | 0.0360234 | -0.971813 | 2.1682995 | 2.1682995 |
| 21 | 56:02.0 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.69 | 0.0011643 | -0.0323434 | 0.071148 | 0.0360234 | -1.0007048 | 2.1682995 | 2.1682995 |
| 22 | 01:05.0 | 574216 | 6.35303E+12 | 5.54406E+13 | 5328.81 | 0.0005329 | -0.0313858 | 0.0717448 | 0.0164879 | -0.9710767 | 2.1864882 | 2.1864882 |
| 23 | 06:08.0 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.34 | 0.0005329 | -0.0029529 | 0.0717654 | 0.0164879 | -0.0913627 | 2.187116 | 2.187116 |
| 24 | 11:11.1 | 574219 | 6.35303E+12 | 5.59245E+13 | 5326.73 | 0.0005329 | -0.0191457 | 0.0710963 | 0.0164879 | -0.592368 | 2.1667245 | 2.1667245 |
| 25 | 16:14.0 | 574220 | 6.35303E+12 | 5.59914E+13 | 5332.99 | 0.0005329 | -0.017496 | 0.0710948 | 0.0164879 | -0.5413262 | 2.1666774 | 2.1666774 |
| 26 | 21:16.9 | 574220 | 6.35303E+12 | 5.59914E+13 | 5343.69 | 0.0005329 | -0.0277353 | 0.0712374 | 0.0164879 | -0.8581302 | 2.1710246 | 2.1710246 |
| 27 | 26:20.3 | 574225 | 6.35303E+12 | 5.59876E+13 | 5336.9 | 0.0005329 | -0.0303035 | 0.0711518 | 0.0164879 | -0.9375903 | 2.1684142 | 2.1684142 |
| 28 | 31:23.1 | 574226 | 6.35303E+12 | 5.60441E+13 | 5333.74 | 0.0005329 | -0.0262667 | 0.0710379 | 0.0164879 | -0.8126917 | 2.1649441 | 2.1649441 |
| 29 | 36:26.0 | 574227 | 6.35303E+12 | 5.56725E+13 | 5331.57 | 0.0005329 | -0.0192771 | 0.071483 | 0.0164879 | -0.5964335 | 2.1785089 | 2.1785089 |
| 30 | 41:28.9 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | 0.0005329 | -0.0198472 | 0.0714897 | 0.0164879 | -0.6140724 | 2.1787132 | 2.1787132 |
| 31 | 46:31.8 | 574227 | 6.35303E+12 | 5.56725E+13 | 5343.43 | 0.0005329 | -0.0195084 | 0.071642 | 0.0164879 | -0.6035899 | 2.1833549 | 2.1833549 |
| 32 | 51:34.6 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.99 | 0.0005329 | -0.0293344 | 0.0722038 | 0.0164879 | -0.9076063 | 2.2004762 | 2.2004762 |
| 33 | 56:37.6 | 574229 | 6.35303E+12 | 5.5892E+13 | 5328.81 | 0.0005329 | -0.0236519 | 0.0711654 | 0.0164879 | -0.7317898 | 2.1688293 | 2.1688293 |
| 34 | 01:40.7 | 574229 | 6.35303E+12 | 5.5892E+13 | 5339.09 | 0.0004335 | -0.0187133 | 0.0713027 | 0.0134125 | -0.5789895 | 2.1730133 | 2.1730133 |
| 35 | 06:43.9 | 574229 | 6.35303E+12 | 5.5892E+13 | 5341.16 | 0.0004335 | -0.0309148 | 0.0713303 | 0.0134125 | -0.9565039 | 2.1738558 | 2.1738558 |
| 36 | 11:46.8 | 574230 | 6.35303E+12 | 5.53347E+13 | 5346.19 | 0.0004335 | -0.0303946 | 0.0721165 | 0.0134125 | -0.9404089 | 2.1978165 | 2.1978165 |
| 37 | 16:50.5 | 574230 | 6.35303E+12 | 5.53347E+13 | 5351.52 | 0.0004335 | -0.0303078 | 0.0721884 | 0.0134125 | -0.9377233 | 2.2000077 | 2.2000077 |
| 38 | 21:53.4 | 574231 | 6.35303E+12 | 5.49411E+13 | 5346.91 | 0.0004335 | -0.0281596 | 0.0726431 | 0.0134125 | -0.871258 | 2.2138627 | 2.2138627 |
| 39 | 26:56.3 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.36 | 0.0004335 | -0.0283143 | 0.072622 | 0.0134125 | -0.8760444 | 2.2132209 | 2.2132209 |
| 40 | 31:59.3 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.35 | 0.0004335 | -0.0270691 | 0.0726219 | 0.0134125 | -0.837518 | 2.2132168 | 2.2132168 |
| 41 | 37:02.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5343.98 | 0.0004335 | -0.0275323 | 0.0729151 | 0.0134125 | -0.8518494 | 2.2221538 | 2.2221538 |
| 42 | 42:05.7 | 574232 | 6.35303E+12 | 5.47061E+13 | 5350.73 | 0.0004335 | -0.0275121 | 0.0730072 | 0.0134125 | -0.8512244 | 2.2249606 | 2.2249606 |
| 43 | 47:08.6 | 574232 | 6.35303E+12 | 5.47061E+13 | 5364.94 | 0.0004335 | -0.0290109 | 0.0732011 | 0.0134125 | -0.8975792 | 2.2308695 | 2.2308695 |
| 44 | 52:11.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.68 | 0.0004335 | -0.0282604 | 0.0731157 | 0.0134125 | -0.8743768 | 2.2282664 | 2.2282664 |
| 45 | 57:14.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5363.38 | 0.0004335 | -0.0265346 | 0.0731798 | 0.0134125 | -0.8209805 | 2.2302208 | 2.2302208 |
| 46 | 02:17.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5374.99 | 0.0030406 | -0.02651 | 0.074925 | 0.0940762 | -0.8202194 | 2.283406 | 2.283406 |
| 47 | 07:20.4 | 574233 | 6.35303E+12 | 5.35475E+13 | 5371.65 | 0.0030406 | -0.0027186 | 0.0748784 | 0.0940762 | -0.0841135 | 2.2819871 | 2.2819871 |
| 48 | 12:23.4 | 574233 | 6.35303E+12 | 5.35475E+13 | 5364.6 | 0.0030406 | -0.0006889 | 0.0747801 | 0.0940762 | -0.0213146 | 2.2789921 | 2.2789921 |
| 49 | 17:26.7 | 574233 | 6.35303E+12 | 5.35475E+13 | 5366.68 | 0.0030406 | -0.0182862 | 0.0748091 | 0.0940762 | -0.565775 | 2.2798757 | 2.2798757 |
| 50 | 22:29.5 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.76 | 0.0030406 | -0.0018507 | 0.0752411 | 0.0940762 | -0.0572607 | 2.2930408 | 2.2930408 |
| 51 | 27:32.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.18 | 0.0030406 | -0.0146632 | 0.075233 | 0.0940762 | -0.4536794 | 2.2927926 | 2.2927926 |
| 52 | 32:35.2 | 574234 | 6.35303E+12 | 5.31615E+13 | 5349.69 | 0.0030406 | -0.0031882 | 0.0751138 | 0.0940762 | -0.0986429 | 2.2891597 | 2.2891597 |
| 53 | 37:38.0 | 574235 | 6.35303E+12 | 5.26774E+13 | 5347.97 | 0.0030406 | -0.0160738 | 0.0757796 | 0.0940762 | -0.4973234 | 2.3094528 | 2.3094528 |
| 54 | 42:41.4 | 574236 | 6.35303E+12 | 5.29706E+13 | 5347.88 | 0.0030406 | -0.0316489 | 0.075359 | 0.0940762 | -0.979217 | 2.2966332 | 2.2966332 |
| 55 | 47:44.2 | 574237 | 6.35303E+12 | 5.26741E+13 | 5352.24 | 0.0030406 | -0.0302898 | 0.075845 | 0.0940762 | -0.9371664 | 2.3114455 | 2.3114455 |
| 56 | 52:47.1 | 574238 | 6.35303E+12 | 5.2719E+13 | 5350.15 | 0.0030406 | -0.0052788 | 0.0757508 | 0.0940762 | -0.1633261 | 2.308573 | 2.308573 |
| 57 | 57:50.1 | 574238 | 6.35303E+12 | 5.2719E+13 | 5357.76 | 0.0030406 | -0.0014966 | 0.0758585 | 0.0940762 | -0.0463048 | 2.3118566 | 2.3118566 |
| 58 | 02:52.9 | 574239 | 6.35303E+12 | 5.28168E+13 | 5351.07 | 0.0126546 | -0.0319016 | 0.0756235 | 0.3915333 | -0.9870355 | 2.3046947 | 2.3046947 |
| 59 | 07:55.6 | 574240 | 6.35303E+12 | 5.25658E+13 | 5350.11 | 0.0126546 | -0.0306567 | 0.075971 | 0.3915333 | -0.9485183 | 2.3152833 | 2.3152833 |
| 60 | 12:58.4 | 574243 | 6.35303E+12 | 5.35108E+13 | 5352.35 | 0.0126546 | 0.0001377 | 0.0746606 | 0.3915333 | 0.0042604 | 2.2753498 | 2.2753498 |
| 61 | 18:01.2 | 574243 | 6.35303E+12 | 5.35108E+13 | 5353.74 | 0.0126546 | 0.0004948 | 0.074668 | 0.3915333 | 0.0152905 | 2.2759407 | 2.2759407 |
| 62 | 23:04.0 | 574245 | 6.35303E+12 | 5.38531E+13 | 5358.7 | 0.0126546 | 0.0010492 | 0.074274 | 0.3915333 | 0.0324622 | 2.2635674 | 2.2635674 |
| 63 | 28:07.3 | 574246 | 6.35303E+12 | 5.41667E+13 | 5358.74 | 0.0126546 | -0.0032429 | 0.0738446 | 0.3915333 | -0.1003353 | 2.2504797 | 2.2504797 |
| 64 | 33:10.6 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.99 | 0.0126546 | -0.0011916 | 0.0738894 | 0.3915333 | -0.0368681 | 2.2518446 | 2.2518446 |
| 65 | 38:13.3 | 574246 | 6.35303E+12 | 5.41667E+13 | 5364.93 | 0.0126546 | 0.0049583 | 0.0739299 | 0.3915333 | 0.1534098 | 2.2530793 | 2.2530793 |
| 66 | 43:16.3 | 574247 | 6.35303E+12 | 5.37144E+13 | 5365.93 | 0.0126546 | -0.015444 | 0.0745663 | 0.3915333 | -0.4778374 | 2.2724742 | 2.2724742 |
| 67 | 48:19.5 | 574249 | 6.35303E+12 | 5.43573E+13 | 5360.33 | 0.0126546 | 0.00011564 | 0.0736074 | 0.3915333 | -0.035779 | 2.2432526 | 2.2432526 |
| 68 | 53:23.3 | 574251 | 6.35303E+12 | 5.52479E+13 | 5359.19 | 0.0126546 | 0.0020084 | 0.0724055 | 0.3915333 | 0.0621399 | 2.2066234 | 2.2066234 |
| 69 | 58:26.4 | 574252 | 6.35303E+12 | 5.50584E+13 | 5358.28 | 0.0126546 | 0.0019878 | 0.0726424 | 0.3915333 | 0.0615025 | 2.2138427 | 2.2138427 |
| 70 | 03:29.4 | 574252 | 6.35303E+12 | 5.50584E+13 | 5362.38 | 0.017578 | 0.0053492 | 0. | | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 96 | 14:50.2 | 574269 | 6.35303E+12 | 5.58958E+13 | 5342.94 | 0.0197454 | 0.0091438 | 0.0713492 | 0.6109227 | 0.2829092 | 2.1744317 | 2.1744317 |
| 97 | 19:53.4 | 574270 | 6.35303E+12 | 5.6144E+13 | 5354.22 | 0.0197454 | 0.0085778 | 0.0711837 | 0.6109227 | 0.2653971 | 2.1693883 | 2.1693883 |
| 98 | 24:56.4 | 574271 | 6.35303E+12 | 5.6095E+13 | 5356.83 | 0.0197454 | 0.0083666 | 0.0712807 | 0.6109227 | 0.2588626 | 2.1723438 | 2.1723438 |
| 99 | 29:59.3 | 574271 | 6.35303E+12 | 5.6095E+13 | 5351.83 | 0.0197454 | 0.0082673 | 0.0712142 | 0.6109227 | 0.2557903 | 2.1703161 | 2.1703161 |
| 100 | 35:02.8 | 574272 | 6.35303E+12 | 5.54087E+13 | 5355.01 | 0.0197454 | 0.0084139 | 0.0721391 | 0.6109227 | 0.2603261 | 2.1985034 | 2.1985034 |
| 101 | 40:06.4 | 574273 | 6.35303E+12 | 5.53104E+13 | 5355.83 | 0.0197454 | 0.0088342 | 0.0722783 | 0.6109227 | 0.2733301 | 2.2027469 | 2.2027469 |
| 102 | 45:09.3 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.54 | 0.0197454 | 0.0108837 | 0.072217 | 0.6109227 | 0.3367417 | 2.2008772 | 2.2008772 |
| 103 | 50:12.2 | 574274 | 6.35303E+12 | 5.53441E+13 | 5352.64 | 0.0197454 | 0.0122486 | 0.0721913 | 0.6109227 | 0.3789717 | 2.2000962 | 2.2000962 |
| 104 | 55:15.6 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.99 | 0.0197454 | 0.0149968 | 0.0722365 | 0.6109227 | 0.464001 | 2.2014732 | 2.2014732 |
| 105 | 00:19.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5375.12 | 0.0222325 | 0.0101231 | 0.0724945 | 0.6878735 | 0.3132087 | 2.2093362 | 2.2093362 |
| 106 | 05:21.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5371.63 | 0.0222325 | 0.0092988 | 0.0724475 | 0.6878735 | 0.2877049 | 2.2079017 | 2.2079017 |
| 107 | 10:25.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5367.35 | 0.0222325 | 0.0159435 | 0.0723897 | 0.6878735 | 0.4932919 | 2.2061425 | 2.2061425 |
| 108 | 15:27.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5362.88 | 0.0222325 | 0.0163429 | 0.0723295 | 0.6878735 | 0.5056493 | 2.2043052 | 2.2043052 |
| 109 | 20:30.7 | 574275 | 6.35303E+12 | 5.36343E+13 | 5367 | 0.0222325 | 0.0162985 | 0.07246925 | 0.6878735 | 0.5042756 | 2.2763203 | 2.2763203 |
| 110 | 25:33.4 | 574275 | 6.35303E+12 | 5.36343E+13 | 5371.56 | 0.0222325 | 0.0160846 | 0.0747559 | 0.6878735 | 0.4976575 | 2.2782544 | 2.2782544 |
| 111 | 30:36.1 | 574276 | 6.35303E+12 | 5.309E+13 | 5370.52 | 0.0222325 | 0.0202582 | 0.0755079 | 0.6878735 | 0.6267887 | 2.3011697 | 2.3011697 |
| 112 | 35:39.0 | 574278 | 6.35303E+12 | 5.49235E+13 | 5373.23 | 0.0222325 | 0.0194913 | 0.0730239 | 0.6878735 | 0.6030608 | 2.2254696 | 2.2254696 |
| 113 | 40:41.9 | 574281 | 6.35303E+12 | 5.67946E+13 | 5385.74 | 0.0222325 | 0.0175595 | 0.0707827 | 0.6878735 | 0.5432909 | 2.1571652 | 2.1571652 |
| 114 | 45:45.1 | 574281 | 6.35303E+12 | 5.67946E+13 | 5380.67 | 0.0222325 | 0.0174214 | 0.070716 | 0.6878735 | 0.5390181 | 2.1551345 | 2.1551345 |
| 115 | 50:48.4 | 574281 | 6.35303E+12 | 5.67946E+13 | 5377.85 | 0.0222325 | 0.0137409 | 0.070679 | 0.6878735 | 0.4251434 | 2.1540005 | 2.1540005 |
| 116 | 55:51.4 | 574282 | 6.35303E+12 | 5.6096E+13 | 5376.85 | 0.0222325 | 0.0182958 | 0.0715459 | 0.6878735 | 0.5660721 | 2.1804251 | 2.1804251 |
| 117 | 00:54.6 | 574282 | 6.35303E+12 | 5.6096E+13 | 5379.99 | 0.0242054 | 0.0181581 | 0.0715877 | 0.7489151 | 0.5618116 | 2.1816984 | 2.1816984 |
| 118 | 05:57.8 | 574283 | 6.35303E+12 | 5.56063E+13 | 5400.03 | 0.0242054 | 0.0202376 | 0.0724871 | 0.7489151 | 0.6261513 | 2.2091081 | 2.2091081 |
| 119 | 11:00.8 | 574283 | 6.35303E+12 | 5.56063E+13 | 5401.02 | 0.0242054 | 0.0201139 | 0.0725003 | 0.7489151 | 0.6223241 | 2.2095131 | 2.2095131 |
| 120 | 16:04.4 | 574283 | 6.35303E+12 | 5.56063E+13 | 5410.51 | 0.0242054 | 0.0214443 | 0.0726277 | 0.7489151 | 0.6634866 | 2.2133954 | 2.2133954 |
| 121 | 21:08.0 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.01 | 0.0242054 | 0.0210331 | 0.0714561 | 0.7489151 | 0.6507641 | 2.17769 | 2.17769 |
| 122 | 26:11.4 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.31 | 0.0242054 | 0.0205184 | 0.0714601 | 0.7489151 | 0.6348393 | 2.1778109 | 2.1778109 |
| 123 | 31:14.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5409.35 | 0.0242054 | 0.0209267 | 0.0723816 | 0.7489151 | 0.6474721 | 2.2058933 | 2.2058933 |
| 124 | 36:17.4 | 574285 | 6.35303E+12 | 5.57835E+13 | 5396.6 | 0.0242054 | 0.0200056 | 0.072211 | 0.7489151 | 0.6189733 | 2.2006939 | 2.2006939 |
| 125 | 41:20.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0242054 | 0.0208363 | 0.0723309 | 0.7489151 | 0.6446751 | 2.2043478 | 2.2043478 |
| 126 | 46:23.1 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.1 | 0.0242054 | 0.020561 | 0.0722712 | 0.7489151 | 0.6361573 | 2.202529 | 2.202529 |
| 127 | 51:26.0 | 574285 | 6.35303E+12 | 5.57835E+13 | 5400.14 | 0.0242054 | 0.0208137 | 0.0722583 | 0.7489151 | 0.6439759 | 2.2021375 | 2.2021375 |
| 128 | 56:29.0 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.59 | 0.0242054 | 0.020787 | 0.0722777 | 0.7489151 | 0.6431498 | 2.2027288 | 2.2027288 |
| 129 | 01:32.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0252561 | 0.020855 | 0.0723309 | 0.7814237 | 0.6452537 | 2.2043478 | 2.2043478 |
| 130 | 06:35.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5409.65 | 0.0252561 | 0.0210312 | 0.0723856 | 0.7814237 | 0.6507053 | 2.2060156 | 2.2060156 |
| 131 | 11:38.4 | 574286 | 6.35303E+12 | 5.36818E+13 | 5410.84 | 0.0252561 | 0.0209883 | 0.075236 | 0.7814237 | 0.649378 | 2.2928844 | 2.2928844 |
| 132 | 16:41.6 | 574287 | 6.35303E+12 | 5.50908E+13 | 5403.01 | 0.0252561 | 0.0209295 | 0.0732057 | 0.7814237 | 0.649508 | 2.2310097 | 2.2310097 |
| 133 | 21:44.7 | 574288 | 6.35303E+12 | 5.6446E+13 | 5380.86 | 0.0252561 | 0.0210373 | 0.0711552 | 0.7814237 | 0.6508941 | 2.1685188 | 2.1685188 |
| 134 | 26:47.7 | 574288 | 6.35303E+12 | 5.6446E+13 | 5384.99 | 0.0252561 | 0.0210425 | 0.0712098 | 0.7814237 | 0.651055 | 2.1701832 | 2.1701832 |
| 135 | 31:50.7 | 574289 | 6.35303E+12 | 5.61643E+13 | 5388.52 | 0.0252561 | 0.022109 | 0.071614 | 0.7814237 | 0.6840525 | 2.1824996 | 2.1824996 |
| 136 | 36:53.9 | 574289 | 6.35303E+12 | 5.61643E+13 | 5385.01 | 0.0252561 | 0.021868 | 0.0715673 | 0.7814237 | 0.6864596 | 2.1810779 | 2.1810779 |
| 137 | 41:57.0 | 574289 | 6.35303E+12 | 5.61643E+13 | 5382.53 | 0.0252561 | 0.0216043 | 0.0715343 | 0.7814237 | 0.668437 | 2.1800735 | 2.1800735 |
| 138 | 47:00.1 | 574289 | 6.35303E+12 | 5.61643E+13 | 5379.16 | 0.0252561 | 0.0221915 | 0.0714896 | 0.7814237 | 0.686605 | 2.1787085 | 2.1787085 |
| 139 | 52:03.4 | 574292 | 6.35303E+12 | 5.59818E+13 | 5379.99 | 0.0252561 | 0.0222715 | 0.0717336 | 0.7814237 | 0.6890802 | 2.1861462 | 2.1861462 |
| 140 | 57:06.3 | 574293 | 6.35303E+12 | 5.63654E+13 | 5381.68 | 0.0252561 | 0.0222386 | 0.0712679 | 0.7814237 | 0.6880623 | 2.1719525 | 2.1719525 |
| 141 | 02:09.5 | 574294 | 6.35303E+12 | 5.66874E+13 | 5378.04 | 0.0264225 | 0.0216911 | 0.0708151 | 0.8175122 | 0.6711226 | 2.1581537 | 2.1581537 |
| 142 | 07:12.4 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.0264225 | 0.0218905 | 0.0704165 | 0.8175122 | 0.6772921 | 2.1460054 | 2.1460054 |
| 143 | 12:15.4 | 574296 | 6.35303E+12 | 5.69506E+13 | 5391.26 | 0.0264225 | 0.0220556 | 0.070661 | 0.8175122 | 0.6824003 | 2.1534583 | 2.1534583 |
| 144 | 17:18.3 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.44 | 0.0264225 | 0.0244837 | 0.0696352 | 0.8175122 | 0.7575257 | 2.1221966 | 2.1221966 |
| 145 | 22:21.3 | 574298 | 6.35303E+12 | 5.77593E+13 | 5392.01 | 0.0264225 | 0.0226768 | 0.0696814 | 0.8175122 | 0.7016202 | 2.1236027 | 2.1236027 |
| 146 | 27:24.6 | 574298 | 6.35303E+12 | 5.77593E+13 | 5397.27 | 0.0264225 | 0.0261908 | 0.0697494 | 0.8175122 | 0.8103434 | 2.1256743 | 2.1256743 |
| 147 | 32:27.7 | 574300 | 6.35303E+12 | 5.74492E+13 | 5392.2 | 0.0264225 | 0.0269438 | 0.07006 | 0.8175122 | 0.8336412 | 2.1351406 | 2.1351406 |
| 148 | 37:31.8 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.27 | 0.0264225 | 0.0860346 | 0.0698488 | 0.8175122 | 0.7661905 | 2.1287047 | 2.1287047 |
| 149 | 42:35.9 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.55 | 0.0264225 | 0.2246863 | 0.0698524 | 0.8175122 | 0.9517941 | 2.1288153 | 2.1288153 |
| 150 | 47:40.3 | 574302 | 6.35303E+12 | 5.77583E+13 | 5397.52 | 0.0264225 | 0.1597185 | 0.0697538 | 0.8175122 | 0.9416904 | 2.1288102 | 2.1288102 |
| 151 | 52:44.3 | 574302 | 6.35303E+12 | 5.77583E+13 | 5396.44 | 0.0264225 | 0.1817049 | 0.0697399 | 0.8175122 | 0.9521946 | 2.1253849 | 2.1253849 |
| 152 | 57:48.1 | 574305 | 6.35303E+12 | 5.8471E+13 | 5390.94 | 0.0264225 | 0.1794976 | 0.0688196 | 0.8175122 | 0.5536557 | 2.097339 | 2.097339 |
| 153 | 02:52.0 | 574305 | 6.35303E+12 | 5.8471E+13 | 5391.58 | 0.0287826 | 0.2238323 | 0.0688278 | 0.8905336 | 6.9253714 | 2.097588 | 2.097588 |
| 154 | 07:55.1 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.02 | 0.0287826 | 0.0385992 | 0.0688461 | 0.8905336 | 1.1942592 | 2.0981483 | 2.0981483 |
| 155 | 12:58.1 | 574306 | 6.35303E+12 | 5.85526E+13 | 5393.03 | 0.0287826 | 0.0287708 | 0.0687504 | 0.8905336 | 0.8901686 | 2.0952297 | 2.0952297 |
| 156 | 18:01.0 | 574309 | 6.35303E+12 | 6.00748E+13 | 5395.99 | 0.0287826 | 0.0257429 | 0.0670451 | 0.8905336 | 0.7964853 | 2.0432598 | 2.0432598 |
| 157 | 23:03.8 | 574309 | 6.35303E+12 | 6.00748E+13 | 5395.98 | 0.0287826 | 0.02657 | 0.067045 | 0.8905336 | 0.8220758 | 2.043256 | 2.043256 |
| 158 | 28:06.6 | 574310 | 6.35303E+12 | 6.02983E+13 | 5397.49 | 0.0287826 | 0.0264104 | 0.0668152 | 0.8905336 | 0.8171378 | 2.0362532 | 2.0362532 |
| 159 | 33:09.8 | 574311 | 6.35303E+12 | 6.01255E+13 | 5398.95 | 0.0287826 | 0.0307465 | 0.0670253 | 0.8905336 | 0.9518536 | 2.0426553 | 2.0426553 |
| 160 | 38:13.1 | 574312 | 6.35303E+12 | 5.99055E+13 | 5397.51 | 0.0287826 | 0.0307598 | 0.0672535 | 0.8905336 | 0.9517082 | 2.0496101 | 2.0496101 |
| 161 | 43:15.9 | 574312 | 6.35303E+12 | 5.99055E+13 | 5396.26 | 0.0287826 | 0.0308105 | 0.0672379 | 0.8905336 | 0.9532769 | 2.0491354 | 2.0491354 |
| 162 | 48:18.6 | 574314 | 6.35303E+12 | 5.98595E+13 | 5395.6 | 0.0287826 | 0.0265074 | 0.0672813 | 0.8905336 | 0.820139 | 2.0504592 | 2.0504592 |
| 163 | 53:21.7 | 574315 | 6.35303E+12 | 5.97623E+13 | 5391.83 | 0.0287826 | 0.029322 | 0.0673437 | 0.8905336 | 0.9072227 | 2.0523603 | 2.0523603 |
| 164 | 58:24.3 | 574315 | 6.35303E+12 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 14:45.4 | 574327 | 6.35303E+12 | 5.96067E+13 | 5402.51 | 0.0307976 | 0.0281076 | 0.0676532 | 0.9528777 | 0.8696491 | 2.0617928 | 2.0617928 |
| 191 | 19:48.1 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.01 | 0.0307976 | 0.0263111 | 0.0676069 | 0.9528777 | 0.8140654 | 2.0603812 | 2.0603812 |
| 192 | 24:52.0 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.56 | 0.0307976 | 0.0278043 | 0.0676138 | 0.9528777 | 0.860265 | 2.0605909 | 2.0605909 |
| 193 | 29:55.2 | 574328 | 6.35303E+12 | 5.96752E+13 | 5413.98 | 0.0307976 | 0.0275948 | 0.0677191 | 0.9528777 | 0.8537831 | 2.0638005 | 2.0638005 |
| 194 | 34:58.7 | 574329 | 6.35303E+12 | 5.94855E+13 | 5414.16 | 0.0307976 | 0.0277464 | 0.0679373 | 0.9528777 | 0.8584736 | 2.0704516 | 2.0704516 |
| 195 | 40:01.7 | 574330 | 6.35303E+12 | 5.97035E+13 | 5414.01 | 0.0307976 | 0.0277264 | 0.0676874 | 0.9528777 | 0.8578548 | 2.0628341 | 2.0628341 |
| 196 | 50:08.1 | 574333 | 6.35303E+12 | 5.9734E+13 | 5408.31 | 0.0307976 | 0.0275529 | 0.0675816 | 0.9528777 | 0.8524867 | 2.0596102 | 2.0596102 |
| 197 | 55:11.1 | 574333 | 6.35303E+12 | 5.9734E+13 | 5400.01 | 0.0307976 | 0.0275835 | 0.0674779 | 0.9528777 | 0.8534335 | 2.0564494 | 2.0564494 |
| 198 | 00:14.4 | 574334 | 6.35303E+12 | 5.92562E+13 | 5403.11 | 0.0296508 | 0.0278574 | 0.068061 | 0.9173958 | 0.861908 | 2.0742213 | 2.0742213 |
| 199 | 05:17.4 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.72 | 0.0296508 | 0.0288549 | 0.0683055 | 0.9173958 | 0.8927706 | 2.0816708 | 2.0816708 |
| 200 | 10:20.4 | 574337 | 6.35303E+12 | 6.04407E+13 | 5401.43 | 0.0296508 | 0.0276696 | 0.0670664 | 0.9173958 | 0.8560974 | 2.0329364 | 2.0329364 |
| 201 | 15:23.6 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.84 | 0.0296508 | 0.0274339 | 0.0667361 | 0.9173958 | 0.8488049 | 2.0338434 | 2.0338434 |
| 202 | 20:26.4 | 574340 | 6.35303E+12 | 6.01388E+13 | 5404.02 | 0.0296508 | 0.0269979 | 0.0670734 | 0.9173958 | 0.835315 | 2.044123 | 2.044123 |
| 203 | 25:29.5 | 574342 | 6.35303E+12 | 6.0482E+13 | 5407.99 | 0.0296508 | 0.0274831 | 0.0667418 | 0.9173958 | 0.8503271 | 2.0340152 | 2.0340152 |
| 204 | 30:32.3 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.55 | 0.0296508 | 0.0264784 | 0.0667116 | 0.9173958 | 0.8192417 | 2.0330975 | 2.0330975 |
| 205 | 35:35.1 | 574343 | 6.35303E+12 | 5.99395E+13 | 5400.01 | 0.0296508 | 0.0271096 | 0.0672465 | 0.9173958 | 0.838771 | 2.0493965 | 2.0493965 |
| 206 | 40:37.9 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.02 | 0.0296508 | 0.0269728 | 0.0672341 | 0.9173958 | 0.8345384 | 2.0490207 | 2.0490207 |
| 207 | 50:43.2 | 574344 | 6.35303E+12 | 5.95861E+13 | 5394.85 | 0.0296508 | 0.0269754 | 0.0675807 | 0.9173958 | 0.8364189 | 2.0595816 | 2.0595816 |
| 208 | 55:45.9 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.35 | 0.0296508 | 0.0271175 | 0.0676245 | 0.9173958 | 0.8407945 | 2.0609177 | 2.0609177 |
| 209 | 00:50.4 | 574345 | 6.35303E+12 | 5.83668E+13 | 5398.44 | 0.0287107 | 0.0234886 | 0.0690384 | 0.8883091 | 0.71622573 | 2.1040074 | 2.1040074 |
| 210 | 05:53.3 | 574346 | 6.35303E+12 | 5.84022E+13 | 5394.51 | 0.0287107 | 0.0273792 | 0.0689463 | 0.8883091 | 0.8471124 | 2.1012014 | 2.1012014 |
| 211 | 10:57.2 | 574347 | 6.35303E+12 | 5.86008E+13 | 5396.65 | 0.0287107 | 0.0274463 | 0.0687399 | 0.8883091 | 0.8491885 | 2.0949115 | 2.0949115 |
| 212 | 16:00.2 | 574347 | 6.35303E+12 | 5.86008E+13 | 5399.98 | 0.0287107 | 0.0276066 | 0.0687824 | 0.8883091 | 0.8541482 | 2.0962041 | 2.0962041 |
| 213 | 21:03.3 | 574348 | 6.35303E+12 | 5.87322E+13 | 5397.6 | 0.0287107 | 0.0272933 | 0.0685982 | 0.8883091 | 0.8444547 | 2.0905929 | 2.0905929 |
| 214 | 26:08.2 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.94 | 0.0287107 | 0.0230447 | 0.0685898 | 0.8883091 | 0.71287214 | 2.0903373 | 2.1287214 |
| 215 | 31:11.2 | 574349 | 6.35303E+12 | 5.84595E+13 | 5395.06 | 0.0287107 | 0.0273191 | 0.0688857 | 0.8883091 | 1.154653 | 2.0993542 | 2.0993542 |
| 216 | 36:14.1 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.1 | 0.0287107 | 0.0277184 | 0.0681089 | 0.8883091 | 0.8576073 | 2.0756815 | 2.0756815 |
| 217 | 41:17.0 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.85 | 0.0287107 | 0.0254001 | 0.0681184 | 0.8883091 | 0.7860029 | 2.0759701 | 2.0759701 |
| 218 | 46:19.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.02 | 0.0287107 | 0.0261363 | 0.0679653 | 0.8883091 | 0.8086571 | 2.071303 | 2.071303 |
| 219 | 51:22.9 | 574351 | 6.35303E+12 | 5.92508E+13 | 5393.06 | 0.0287107 | 0.0253253 | 0.0679406 | 0.8883091 | 0.783571 | 2.0705505 | 2.0705505 |
| 220 | 01:28.4 | 574351 | 6.35303E+12 | 5.92508E+13 | 5390.01 | 0.0299929 | 0.02562 | 0.0679022 | 0.9279803 | 0.7926828 | 2.0693795 | 2.0693795 |
| 221 | 06:31.2 | 574351 | 6.35303E+12 | 5.92508E+13 | 5374.44 | 0.0299929 | 0.0230599 | 0.067706 | 0.9279803 | 0.7134733 | 2.0634017 | 2.0634017 |
| 222 | 11:34.1 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.81 | 0.0299929 | 0.0231322 | 0.0676729 | 0.9279803 | 0.7157103 | 2.062392 | 2.062392 |
| 223 | 16:37.1 | 574352 | 6.35303E+12 | 5.79249E+13 | 5372.6 | 0.0299929 | 0.0247667 | 0.0692321 | 0.9279803 | 0.7662817 | 2.1099115 | 2.1099115 |
| 224 | 26:42.4 | 574353 | 6.35303E+12 | 5.95341E+13 | 5384.99 | 0.0299929 | 0.0253569 | 0.0675161 | 0.9279803 | 0.7848209 | 2.0576131 | 2.0576131 |
| 225 | 31:45.3 | 574353 | 6.35303E+12 | 5.95341E+13 | 5393.61 | 0.0299929 | 0.025794 | 0.0676241 | 0.9279803 | 0.7980664 | 2.0609068 | 2.0609068 |
| 226 | 41:50.8 | 574353 | 6.35303E+12 | 5.95341E+13 | 5401.49 | 0.0299929 | 0.0254275 | 0.0677229 | 0.9279803 | 0.7867268 | 2.0639177 | 2.0639177 |
| 227 | 46:53.9 | 574356 | 6.35303E+12 | 6.01278E+13 | 5393.39 | 0.0299929 | 0.023825 | 0.0669538 | 0.9279803 | 0.7371455 | 2.0404768 | 2.0404768 |
| 228 | 51:57.5 | 574356 | 6.35303E+12 | 6.01278E+13 | 5401.9 | 0.0299929 | 0.0253189 | 0.0670594 | 0.9279803 | 0.7833668 | 2.0436963 | 2.0436963 |
| 229 | 57:00.7 | 574357 | 6.35303E+12 | 5.98782E+13 | 5404.01 | 0.0299929 | 0.0224156 | 0.0673653 | 0.9279803 | 0.6935387 | 2.0530169 | 2.0530169 |
| 230 | 02:03.8 | 574357 | 6.35303E+12 | 5.98782E+13 | 5410.44 | 0.036492 | 0.022551 | 0.0674454 | 1.1290625 | 0.6885728 | 2.0554597 | 2.0554597 |
| 231 | 07:07.6 | 574357 | 6.35303E+12 | 5.98782E+13 | 5413.48 | 0.036492 | 0.0220381 | 0.0674833 | 1.1290625 | 0.6818588 | 2.0566147 | 2.0566147 |
| 232 | 12:11.1 | 574359 | 6.35303E+12 | 5.99023E+13 | 5412.99 | 0.036492 | 0.0222681 | 0.0674501 | 1.1290625 | 0.688975 | 2.0556012 | 2.0556012 |
| 233 | 17:14.5 | 574360 | 6.35303E+12 | 6.0023E+13 | 5413.64 | 0.036492 | 0.0223594 | 0.0673224 | 1.1290625 | 0.6917998 | 2.0517109 | 2.0517109 |
| 234 | 22:17.6 | 574360 | 6.35303E+12 | 6.0023E+13 | 5409.57 | 0.036492 | 0.0232117 | 0.0672718 | 1.1290625 | 0.71817 | 2.0501684 | 2.0501684 |
| 235 | 27:20.8 | 574360 | 6.35303E+12 | 6.0023E+13 | 5403.2 | 0.036492 | 0.022951 | 0.0671926 | 1.1290625 | 0.7101039 | 2.0477543 | 2.0477543 |
| 236 | 32:24.8 | 574361 | 6.35303E+12 | 5.95038E+13 | 5409.65 | 0.036492 | 0.0250046 | 0.0678598 | 1.1290625 | 0.7736423 | 2.068088 | 2.068088 |
| 237 | 37:27.9 | 574361 | 6.35303E+12 | 5.95038E+13 | 5414.99 | 0.036492 | 0.0365942 | 0.0679268 | 1.1290625 | 1.1322245 | 2.0701294 | 2.0701294 |
| 238 | 42:31.0 | 574362 | 6.35303E+12 | 5.87448E+13 | 5422.88 | 0.036492 | 0.0243161 | 0.0689047 | 1.1290625 | 0.7523401 | 2.0999322 | 2.0999322 |
| 239 | 47:34.5 | 574362 | 6.35303E+12 | 5.87448E+13 | 5432.58 | 0.036492 | 0.0229003 | 0.0690279 | 1.1290625 | 0.7085353 | 2.1036884 | 2.1036884 |
| 240 | 52:37.7 | 574362 | 6.35303E+12 | 5.87448E+13 | 5428.01 | 0.036492 | 0.0245215 | 0.0689699 | 1.1290625 | 0.7586952 | 2.1019188 | 2.1019188 |
| 241 | 57:42.1 | 574363 | 6.35303E+12 | 5.80502E+13 | 5427.15 | 0.036492 | 0.0332235 | 0.0697841 | 1.1290625 | 1.0279351 | 2.1267343 | 2.1267343 |
| 242 | 02:45.1 | 574364 | 6.35303E+12 | 5.78645E+13 | 5427.23 | 0.0274366 | 0.0490236 | 0.0700091 | 1.5167902 | 1.5167902 | 2.1335902 | 2.1335902 |
| 243 | 07:48.2 | 574364 | 6.35303E+12 | 5.78645E+13 | 5441.99 | 0.0274366 | 0.0440093 | 0.0701995 | 0.8488884 | 1.3642529 | 2.1393928 | 2.1393928 |
| 244 | 12:51.1 | 574365 | 6.35303E+12 | 5.73396E+13 | 5428.97 | 0.0274366 | 0.0247736 | 0.0706726 | 0.8488884 | 1.7664952 | 2.1538115 | 2.1538115 |
| 245 | 17:54.2 | 574367 | 6.35303E+12 | 5.84533E+13 | 5439.06 | 0.0274366 | 0.0251483 | 0.069455 | 0.8488884 | 0.7780884 | 2.1167024 | 2.1167024 |
| 246 | 22:58.5 | 574367 | 6.35303E+12 | 5.84533E+13 | 5434.48 | 0.0274366 | 0.0235975 | 0.0693965 | 0.8488884 | 0.7301067 | 2.1149201 | 2.1149201 |
| 247 | 28:01.7 | 574368 | 6.35303E+12 | 5.81378E+13 | 5438.3 | 0.0274366 | 0.0218651 | 0.0698221 | 0.8488884 | 0.6765062 | 2.1278923 | 2.1278923 |
| 248 | 33:04.7 | 574368 | 6.35303E+12 | 5.81378E+13 | 5439.66 | 0.0274366 | 0.0251412 | 0.0698396 | 0.8488884 | 0.6664847 | 2.1284244 | 2.1284244 |
| 249 | 38:08.0 | 574369 | 6.35303E+12 | 5.7527E+13 | 5442.57 | 0.0274366 | 0.021035 | 0.0706189 | 0.8488884 | 0.6508229 | 2.1521741 | 2.1521741 |
| 250 | 43:11.1 | 574370 | 6.35303E+12 | 5.73316E+13 | 5444.99 | 0.0274366 | 0.0203824 | 0.0708911 | 0.8488884 | 0.6306315 | 2.1604697 | 2.1604697 |
| 251 | 48:14.4 | 574370 | 6.35303E+12 | 5.73316E+13 | 5471.73 | 0.0274366 | 0.0203027 | 0.0712392 | 0.8488884 | 0.6281655 | 2.1710796 | 2.1710796 |
| 252 | 53:17.3 | 574370 | 6.35303E+12 | 5.73316E+13 | 5469.28 | 0.0274366 | 0.0199351 | 0.0712073 | 0.8488884 | 0.616792 | 2.1701075 | 2.1701075 |
| 253 | 58:21.3 | 574373 | 6.35303E+12 | 5.75391E+13 | 5468.81 | 0.0274366 | 0.0202047 | 0.0709444 | 0.8488884 | 0.6251334 | 2.1620944 | 2.1620944 |
| 254 | 03:24.3 | 574373 | 6.35303E+12 | 5.75391E+13 | 5471.06 | 0.0211425 | 0.0198863 | 0.0709736 | 0.654149 | 0.6152821 | 2.1629839 | 2.1629839 |
| 255 | 08:27.3 | 574374 | 6.35303E+12 | 5.70787E+13 | 5464.23 | 0.0211425 | 0.0196411 | 0.0714567 | 0.654149 | 0.6076956 | 2.177708 | 2.177708 |
| 256 | 13:30.2 | 574374 | 6.35303E+12 | 5.70787E+13 | 5456.01 | 0.0211425 | 0.0200366 | 0.0713492 | 0.654149 | 0.6199324 | 2.1744321 | 2.1744321 |
| 257 | 18:33.0 | 574375 | 6.35303E+12 | 5.67247E+13 | 5460.16 | 0.0211425 | 0.0197672 | 0.0718491 | 0.654149 | 0.6115972 | 2.1896661 | 2.1896661 |
| 258 | 23:35.9 | 574376 | 6.35303E+12 | | | | | | | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_UMP | real_time_UMP | breakeven_mining_cost | day_ahead_UMP_rev | real_time_UMP_rev | mining_rev | realized_rev |
| 284 | 50:33.9 | 574395 | 6.35303E+12 | 5.53825E+13 | 5520.48 | 0.0173139 | 0.0198422 | 0.0744034 | 0.5356921 | 0.6139177 | 2.2675111 | 2.2675111 |
| 285 | 55:36.8 | 574395 | 6.35303E+12 | 5.53825E+13 | 5515.98 | 0.0173139 | 0.0194883 | 0.0743428 | 0.5356921 | 0.602968 | 2.2656627 | 2.2656627 |
| 286 | 00:39.8 | 574395 | 6.35303E+12 | 5.53825E+13 | 5518.69 | 0.0179626 | 0.019462 | 0.0743793 | 0.5557628 | 0.6021543 | 2.2667759 | 2.2667759 |
| 287 | 05:43.2 | 574395 | 6.35303E+12 | 5.53825E+13 | 5531.68 | 0.0179626 | 0.0194192 | 0.0745544 | 0.5557628 | 0.60083 | 2.2721114 | 2.2721114 |
| 288 | 10:46.2 | 574395 | 6.35303E+12 | 5.53825E+13 | 5530.89 | 0.0179626 | 0.0192349 | 0.0745437 | 0.5557628 | 0.5951278 | 2.2717869 | 2.2717869 |
| 289 | 15:49.8 | 574396 | 6.35303E+12 | 5.44713E+13 | 5541.2 | 0.0179626 | 0.0191897 | 0.075932 | 0.5557628 | 0.5937293 | 2.3140947 | 2.3140947 |
| 290 | 20:52.7 | 574396 | 6.35303E+12 | 5.44713E+13 | 5544.69 | 0.0179626 | 0.0191963 | 0.0759798 | 0.5557628 | 0.5939335 | 2.3155521 | 2.3155521 |
| 291 | 25:55.6 | 574396 | 6.35303E+12 | 5.44713E+13 | 5552.98 | 0.0179626 | 0.0192925 | 0.0760934 | 0.5557628 | 0.59691 | 2.3190142 | 2.3190142 |
| 292 | 30:58.6 | 574397 | 6.35303E+12 | 5.38389E+13 | 5536.99 | 0.0179626 | 0.0189288 | 0.0767654 | 0.5557628 | 0.5856571 | 2.3394943 | 2.3394943 |
| 293 | 36:02.2 | 574397 | 6.35303E+12 | 5.38389E+13 | 5549.99 | 0.0179626 | 0.0191736 | 0.0769456 | 0.5557628 | 0.5932312 | 2.3449871 | 2.3449871 |
| 294 | 41:05.2 | 574397 | 6.35303E+12 | 5.38389E+13 | 5578.73 | 0.0179626 | 0.0190702 | 0.0773441 | 0.5557628 | 0.5900877 | 2.3571303 | 2.3571303 |
| 295 | 46:08.4 | 574397 | 6.35303E+12 | 5.38389E+13 | 5587.27 | 0.0179626 | 0.0191605 | 0.0774625 | 0.5557628 | 0.5928259 | 2.3607386 | 2.3607386 |
| 296 | 51:11.5 | 574397 | 6.35303E+12 | 5.38389E+13 | 5577.62 | 0.0179626 | 0.019671 | 0.0773287 | 0.5557628 | 0.6086207 | 2.3566613 | 2.3566613 |
| 297 | 56:14.6 | 574397 | 6.35303E+12 | 5.38389E+13 | 5578.43 | 0.0179626 | 0.019726 | 0.0773399 | 0.5557628 | 0.6103224 | 2.3570036 | 2.3570036 |
| 298 | 01:18.0 | 574398 | 6.35303E+12 | 5.24135E+13 | 5585.77 | 0.0181708 | 0.020031 | 0.0795478 | 0.5622046 | 0.6197591 | 2.42429 | 2.42429 |
| 299 | 06:21.5 | 574399 | 6.35303E+12 | 5.22154E+13 | 5570.36 | 0.0181708 | 0.0201913 | 0.0796293 | 0.5622046 | 0.6247188 | 2.4267736 | 2.4267736 |
| 300 | 11:24.3 | 574400 | 6.35303E+12 | 5.19602E+13 | 5563.2 | 0.0181708 | 0.0200017 | 0.0799175 | 0.5622046 | 0.6188526 | 2.4355582 | 2.4355582 |
| 301 | 16:27.3 | 574400 | 6.35303E+12 | 5.19602E+13 | 5579.23 | 0.0181708 | 0.0200965 | 0.0801478 | 0.5622046 | 0.6217857 | 2.4425761 | 2.4425761 |
| 302 | 21:30.3 | 574400 | 6.35303E+12 | 5.19602E+13 | 5571.91 | 0.0181708 | 0.0200908 | 0.0800426 | 0.5622046 | 0.6216094 | 2.4393714 | 2.4393714 |
| 303 | 26:33.2 | 574401 | 6.35303E+12 | 5.14241E+13 | 5570.27 | 0.0181708 | 0.0202515 | 0.0808533 | 0.5622046 | 0.6265814 | 2.4640783 | 2.4640783 |
| 304 | 31:36.5 | 574402 | 6.35303E+12 | 5.15991E+13 | 5562.53 | 0.0181708 | 0.0202163 | 0.0804671 | 0.5622046 | 0.6254923 | 2.4523071 | 2.4523071 |
| 305 | 36:39.4 | 574402 | 6.35303E+12 | 5.15991E+13 | 5598.28 | 0.0181708 | 0.0209438 | 0.0809843 | 0.5622046 | 0.6480012 | 2.4680679 | 2.4680679 |
| 306 | 41:42.1 | 574404 | 6.35303E+12 | 5.22163E+13 | 5622.51 | 0.0181708 | 0.0204391 | 0.0803735 | 0.5622046 | 0.6323858 | 2.4494541 | 2.4494541 |
| 307 | 46:45.3 | 574405 | 6.35303E+12 | 5.26766E+13 | 5610.46 | 0.0181708 | 0.022443 | 0.0795004 | 0.5622046 | 0.6943864 | 2.4228448 | 2.4228448 |
| 308 | 51:48.2 | 574406 | 6.35303E+12 | 5.44332E+13 | 5697.34 | 0.0181708 | 0.0205015 | 0.0781261 | 0.5622046 | 0.6343164 | 2.3809636 | 2.3809636 |
| 309 | 56:50.9 | 574407 | 6.35303E+12 | 5.44179E+13 | 5660.07 | 0.0181708 | 0.020423 | 0.077637 | 0.5622046 | 0.6318876 | 2.3660567 | 2.3660567 |
| 310 | 06:56.4 | 574408 | 6.35303E+12 | 5.43366E+13 | 5661.93 | 0.0189944 | 0.0199466 | 0.0777787 | 0.5876867 | 0.6171478 | 2.3703744 | 2.3703744 |
| 311 | 11:59.9 | 574409 | 6.35303E+12 | 5.45039E+13 | 5688.4 | 0.0189944 | 0.0202274 | 0.0779024 | 0.5876867 | 0.6258358 | 2.3741451 | 2.3741451 |
| 312 | 17:03.3 | 574409 | 6.35303E+12 | 5.45039E+13 | 5705.82 | 0.0189944 | 0.0204858 | 0.0781409 | 0.5876867 | 0.6338307 | 2.3814156 | 2.3814156 |
| 313 | 22:06.7 | 574409 | 6.35303E+12 | 5.45039E+13 | 5684.26 | 0.0189944 | 0.0228673 | 0.0778457 | 0.5876867 | 0.7075143 | 2.3724172 | 2.3724172 |
| 314 | 27:09.6 | 574410 | 6.35303E+12 | 5.4739E+13 | 5675.94 | 0.0189944 | 0.0210179 | 0.0773979 | 0.5876867 | 0.6502938 | 2.3587711 | 2.3587711 |
| 315 | 32:12.9 | 574410 | 6.35303E+12 | 5.4739E+13 | 5704.8 | 0.0189944 | 0.0219318 | 0.0777915 | 0.5876867 | 0.6785699 | 2.3707646 | 2.3707646 |
| 316 | 37:15.9 | 574410 | 6.35303E+12 | 5.4739E+13 | 5701.98 | 0.0189944 | 0.0220176 | 0.077753 | 0.5876867 | 0.6812245 | 2.3695926 | 2.3695926 |
| 317 | 42:18.6 | 574410 | 6.35303E+12 | 5.4739E+13 | 5732.34 | 0.0189944 | 0.0217753 | 0.078167 | 0.5876867 | 0.6737278 | 2.3822095 | 2.3822095 |
| 318 | 47:21.8 | 574410 | 6.35303E+12 | 5.4739E+13 | 5753.01 | 0.0189944 | 0.0233293 | 0.0784489 | 0.5876867 | 0.7218085 | 2.3907994 | 2.3907994 |
| 319 | 52:25.1 | 574410 | 6.35303E+12 | 5.4739E+13 | 5756.81 | 0.0189944 | 0.0238745 | 0.0785007 | 0.5876867 | 0.738677 | 2.3923786 | 2.3923786 |
| 320 | 57:27.9 | 574412 | 6.35303E+12 | 5.33495E+13 | 5791.51 | 0.0189944 | 0.0451717 | 0.0810308 | 0.5876867 | 1.3976124 | 2.4694857 | 2.4694857 |
| 321 | 02:31.0 | 574412 | 6.35303E+12 | 5.33495E+13 | 5778.34 | 0.0239869 | 0.0254874 | 0.0808465 | 0.7421547 | 0.7885802 | 2.46387 | 2.46387 |
| 322 | 07:34.0 | 574412 | 6.35303E+12 | 5.33495E+13 | 5695.4 | 0.0239869 | 0.0228529 | 0.0796861 | 0.7421547 | 0.7070687 | 2.4285046 | 2.4285046 |
| 323 | 12:36.8 | 574412 | 6.35303E+12 | 5.33495E+13 | 5717.23 | 0.0239869 | 0.0236822 | 0.0799915 | 0.7421547 | 0.7327273 | 2.4378128 | 2.4378128 |
| 324 | 22:41.7 | 574413 | 6.35303E+12 | 5.25253E+13 | 5730.11 | 0.0239869 | 0.025552 | 0.0814296 | 0.7421547 | 0.6978579 | 2.4816407 | 2.4816407 |
| 325 | 27:44.8 | 574413 | 6.35303E+12 | 5.25253E+13 | 5715.55 | 0.0239869 | 0.0259265 | 0.0812227 | 0.7421547 | 0.8021659 | 2.475335 | 2.475335 |
| 326 | 32:47.7 | 574414 | 6.35303E+12 | 5.19701E+13 | 5734.99 | 0.0239869 | 0.025733 | 0.0823697 | 0.7421547 | 0.796179 | 2.5102894 | 2.5102894 |
| 327 | 37:50.9 | 574414 | 6.35303E+12 | 5.19701E+13 | 5743.05 | 0.0239869 | 0.0260107 | 0.0824854 | 0.7421547 | 0.8047711 | 2.5138174 | 2.5138174 |
| 328 | 42:53.7 | 574416 | 6.35303E+12 | 5.19215E+13 | 5725.93 | 0.0239869 | 0.0259129 | 0.0823165 | 0.7421547 | 0.8017451 | 2.5086707 | 2.5086707 |
| 329 | 47:56.5 | 574419 | 6.35303E+12 | 5.263E+13 | 5733.81 | 0.0239869 | 0.0228376 | 0.0813201 | 0.7421547 | 0.7065953 | 2.4783037 | 2.4783037 |
| 330 | 52:59.1 | 574420 | 6.35303E+12 | 5.25895E+13 | 5702.24 | 0.0239869 | 0.0369356 | 0.0809348 | 0.7421547 | 1.1427875 | 2.4665598 | 2.4665598 |
| 331 | 58:01.8 | 574421 | 6.35303E+12 | 5.25734E+13 | 5674.41 | 0.0239869 | 0.0239106 | 0.0805643 | 0.7421547 | 0.739794 | 2.4552707 | 2.4552707 |
| 332 | 03:04.8 | 574422 | 6.35303E+12 | 5.2543E+13 | 5686.55 | 0.0273845 | 0.0222843 | 0.0807834 | 0.8472764 | 0.6894762 | 2.4619458 | 2.4619458 |
| 333 | 08:08.0 | 574424 | 6.35303E+12 | 5.28202E+13 | 5686.98 | 0.0273845 | 0.0222021 | 0.0803655 | 0.8472764 | 0.6868989 | 2.4492125 | 2.4492125 |
| 334 | 13:10.8 | 574424 | 6.35303E+12 | 5.28202E+13 | 5696.24 | 0.0273845 | 0.0222756 | 0.0804964 | 0.8472764 | 0.6892071 | 2.4532005 | 2.4532005 |
| 335 | 18:13.9 | 574424 | 6.35303E+12 | 5.28202E+13 | 5678.52 | 0.0273845 | 0.0287661 | 0.080246 | 0.8472764 | 0.8900231 | 2.445569 | 2.445569 |
| 336 | 23:16.6 | 574426 | 6.35303E+12 | 5.30049E+13 | 5680.01 | 0.0273845 | 0.0279874 | 0.0799874 | 0.8472764 | 1.5319879 | 2.4376872 | 2.4376872 |
| 337 | 28:20.7 | 574427 | 6.35303E+12 | 5.28466E+13 | 5679.28 | 0.0273845 | 0.2410973 | 0.0802166 | 0.8472764 | 7.4595505 | 2.4446732 | 2.4495505 |
| 338 | 33:24.6 | 574427 | 6.35303E+12 | 5.28466E+13 | 5698.99 | 0.0273845 | 0.2542574 | 0.080495 | 0.8472764 | 7.2234257 | 2.5135174 | 2.7234257 |
| 339 | 38:27.3 | 574427 | 6.35303E+12 | 5.28466E+13 | 5702.85 | 0.0273845 | 0.0497981 | 0.0805495 | 0.8472764 | 1.5407532 | 2.454819 | 2.454819 |
| 340 | 43:30.1 | 574428 | 6.35303E+12 | 5.2354E+13 | 5722.4 | 0.0273845 | 0.028405 | 0.0815862 | 0.8472764 | 0.8788569 | 2.4864117 | 2.4864117 |
| 341 | 48:33.4 | 574428 | 6.35303E+12 | 5.2354E+13 | 5723.27 | 0.0273845 | 0.0286907 | 0.0815986 | 0.8472764 | 0.8876903 | 2.4867897 | 2.4867897 |
| 342 | 53:36.4 | 574428 | 6.35303E+12 | 5.2354E+13 | 5711.78 | 0.0273845 | 0.0289323 | 0.0814347 | 0.8472764 | 0.8951654 | 2.4817972 | 2.4817972 |
| 343 | 58:39.1 | 574429 | 6.35303E+12 | 5.15634E+13 | 5700.85 | 0.0273845 | 0.0244206 | 0.0825252 | 0.8472764 | 0.7555734 | 2.5150298 | 2.5150298 |
| 344 | 03:41.9 | 574429 | 6.35303E+12 | 5.15634E+13 | 5699.99 | 0.0280847 | 0.022925 | 0.0825128 | 0.8689406 | 0.7092995 | 2.5146504 | 2.5146504 |
| 345 | 08:44.7 | 574429 | 6.35303E+12 | 5.15634E+13 | 5715.88 | 0.0280847 | 0.0237192 | 0.0827428 | 0.8689406 | 0.733872 | 2.5216605 | 2.5216605 |
| 346 | 13:47.4 | 574430 | 6.35303E+12 | 5.12815E+13 | 5716.7 | 0.0280847 | 0.0238876 | 0.0832095 | 0.8689406 | 0.7390823 | 2.5358831 | 2.5358831 |
| 347 | 18:50.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5707.94 | 0.0280847 | 0.0242522 | 0.0830819 | 0.8689406 | 0.7503631 | 2.5319972 | 2.5319972 |
| 348 | 23:53.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5728.45 | 0.0280847 | 0.024234 | 0.0833805 | 0.8689406 | 0.7498 | 2.5410953 | 2.5410953 |
| 349 | 28:55.9 | 574430 | 6.35303E+12 | 5.12815E+13 | 5736.02 | 0.0280847 | 0.0243241 | 0.0834907 | 0.8689406 | 0.7525877 | 2.5444533 | 2.5444533 |
| 350 | 33:59.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5740.86 | 0.0280847 | 0.0252158 | 0.0835611 | 0.8689406 | 0.7801769 | 2.5466002 | 2.5466002 |
| 351 | 44:04.4 | 574430 | 6.35303E+12 | 5.12815E+13 | 5732.1 | 0.0280847 | 0.0252418 | 0.0834336 | 0.8689406 | 0.7809813 | 2.5427144 | 2.5427144 |
| 352 | 49:07.5 | 574431 | 6.35303E+12 | 4 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 00:26.7 | 574448 | 6.35303E+12 | 5.19511E+13 | 5721.44 | 0.0298141 | 0.0274938 | 0.082205 | 0.9224483 | 0.8506582 | 2.5052726 | 2.5052726 |
| 379 | 05:29.8 | 574448 | 6.35303E+12 | 5.19511E+13 | 5706.98 | 0.0298141 | 0.025617 | 0.0819973 | 0.9224483 | 0.79259 | 2.4989409 | 2.4989409 |
| 380 | 10:32.8 | 574449 | 6.35303E+12 | 5.17328E+13 | 5701.52 | 0.0298141 | 0.0262028 | 0.0822646 | 0.9224483 | 0.8107146 | 2.5070865 | 2.5070865 |
| 381 | 15:35.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.36 | 0.0298141 | 0.0265338 | 0.0826329 | 0.9224483 | 0.8209558 | 2.5183117 | 2.5183117 |
| 382 | 20:38.2 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.9 | 0.0298141 | 0.0262195 | 0.0825685 | 0.9224483 | 0.8112313 | 2.5163482 | 2.5163482 |
| 383 | 25:41.0 | 574450 | 6.35303E+12 | 5.16724E+13 | 5710.01 | 0.0298141 | 0.0263037 | 0.0824834 | 0.9224483 | 0.8138365 | 2.5137552 | 2.5137552 |
| 384 | 30:43.8 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.01 | 0.0298141 | 0.02601 | 0.0826278 | 0.9224483 | 0.8047494 | 2.5181576 | 2.5181576 |
| 385 | 35:46.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5725.31 | 0.0298141 | 0.026584 | 0.0827044 | 0.9224483 | 0.822509 | 2.5204908 | 2.5204908 |
| 386 | 40:49.3 | 574452 | 6.35303E+12 | 5.09821E+13 | 5714.39 | 0.0298141 | 0.0267055 | 0.0836643 | 0.9224483 | 0.8262682 | 2.5497457 | 2.5497457 |
| 387 | 45:52.2 | 574454 | 6.35303E+12 | 5.11925E+13 | 5720.01 | 0.0298141 | 0.0254888 | 0.0834024 | 0.9224483 | 0.7886235 | 2.5417623 | 2.5417623 |
| 388 | 50:55.0 | 574454 | 6.35303E+12 | 5.11925E+13 | 5704.48 | 0.0298141 | 0.0247314 | 0.0831759 | 0.9224483 | 0.7651895 | 2.5348614 | 2.5348614 |
| 389 | 55:58.0 | 574454 | 6.35303E+12 | 5.11925E+13 | 5713.35 | 0.0298141 | 0.0244232 | 0.0833053 | 0.9224483 | 0.7556538 | 2.5388029 | 2.5388029 |
| 390 | 01:00.9 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.69 | 0.0322754 | 0.0256095 | 0.0833248 | 0.9986009 | 0.7923579 | 2.5393983 | 2.5393983 |
| 391 | 06:03.7 | 574454 | 6.35303E+12 | 5.11925E+13 | 5710.33 | 0.0322754 | 0.024586 | 0.0832612 | 0.9986009 | 0.7606908 | 2.5374609 | 2.5374609 |
| 392 | 11:06.7 | 574454 | 6.35303E+12 | 5.11925E+13 | 5705.52 | 0.0322754 | 0.0249145 | 0.0831911 | 0.9986009 | 0.7708546 | 2.5353235 | 2.5353235 |

Bearbox v Lancium
Trial Exhibit
TX920-4

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

Appx13423

BB10000915

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 19:54.2 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.43 | 0.00578 | 0.004853 | 0.0737715 | 0.1788332 | 0.1501518 | 2.2482519 | 2.2482519 |
| 3 | 24:57.5 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.00578 | 0.0059132 | 0.0737656 | 0.1788332 | 0.1829544 | 2.2480744 | 2.2480744 |
| 4 | 30:00.6 | 574204 | 6.35303E+12 | 5.38327E+13 | 5319.98 | 0.00578 | 0.0058605 | 0.0737652 | 0.1788332 | 0.1813239 | 2.2480617 | 2.2480617 |
| 5 | 35:04.1 | 574205 | 6.35303E+12 | 5.30839E+13 | 5323.01 | 0.00578 | 0.0046039 | 0.0748484 | 0.1788332 | 0.1424447 | 2.2810714 | 2.2810714 |
| 6 | 40:07.2 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.94 | 0.00578 | 0.0032873 | 0.0748333 | 0.1788332 | 0.1017091 | 2.2806129 | 2.2806129 |
| 7 | 45:10.6 | 574206 | 6.35303E+12 | 5.44532E+13 | 5326.51 | 0.00578 | 0.0012722 | 0.0730143 | 0.1788332 | 0.0596276 | 2.2251767 | 2.2251767 |
| 8 | 50:13.5 | 574206 | 6.35303E+12 | 5.44532E+13 | 5326.54 | 0.00578 | 0.0070844 | 0.0730147 | 0.1788332 | 0.2191913 | 2.2251893 | 2.2251893 |
| 9 | 55:16.9 | 574207 | 6.35303E+12 | 5.39845E+13 | 5328.24 | 0.00578 | 0.0006523 | 0.0736721 | 0.1788332 | 0.0201822 | 2.2452223 | 2.2452223 |
| 10 | 00:20.2 | 574207 | 6.35303E+12 | 5.39845E+13 | 5325.77 | 0.0088315 | 0.0022674 | 0.0736379 | 0.0257266 | 0.0701534 | 2.2441815 | 2.2441815 |
| 11 | 05:23.2 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.77 | 0.0008315 | -0.0037312 | 0.0743518 | 0.0257266 | -0.1154433 | 2.2659373 | 2.2659373 |
| 12 | 10:26.1 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0008315 | -0.0087112 | 0.0743412 | 0.0257266 | -0.2695245 | 2.2656139 | 2.2656139 |
| 13 | 15:29.1 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.31 | 0.0008315 | 0.0006042 | 0.0744545 | 0.0257266 | 0.0186939 | 2.2690675 | 2.2690675 |
| 14 | 20:32.0 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0008315 | 0.0008759 | 0.0744503 | 0.0257266 | 0.0271003 | 2.2689395 | 2.2689395 |
| 15 | 25:36.1 | 574210 | 6.35303E+12 | 5.36221E+13 | 5326.26 | 0.0008315 | -0.0192181 | 0.0741425 | 0.0257266 | -0.594608 | 2.2595592 | 2.2595592 |
| 16 | 30:39.1 | 574212 | 6.35303E+12 | 5.54528E+13 | 5327.73 | 0.0008315 | -0.0318283 | 0.0717145 | 0.0257266 | -0.984676 | 2.1855639 | 2.1855639 |
| 17 | 35:42.2 | 574213 | 6.35303E+12 | 5.51131E+13 | 5321.02 | 0.0008315 | -0.0308899 | 0.0720657 | 0.0257266 | -0.9557335 | 2.1962672 | 2.1962672 |
| 18 | 40:45.0 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0008315 | -0.0302146 | 0.0711001 | 0.0257266 | -0.9348397 | 2.1668382 | 2.1668382 |
| 19 | 45:47.9 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0008315 | -0.0268742 | 0.0711001 | 0.0257266 | -0.8314877 | 2.1668382 | 2.1668382 |
| 20 | 50:51.0 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.69 | 0.0008315 | -0.0311753 | 0.071148 | 0.0257266 | -0.9645638 | 2.1682995 | 2.1682995 |
| 21 | 55:53.8 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.69 | 0.0008315 | -0.0321213 | 0.071148 | 0.0257266 | -0.993833 | 2.1682995 | 2.1682995 |
| 22 | 00:56.7 | 574216 | 6.35303E+12 | 5.54406E+13 | 5328.81 | 0.0002678 | -0.0312479 | 0.0717448 | 0.0082857 | -0.96681 | 2.1864882 | 2.1864882 |
| 23 | 06:00.2 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.34 | 0.0002678 | -0.0031224 | 0.0717654 | 0.0082857 | -0.096601 | 2.187116 | 2.187116 |
| 24 | 11:03.3 | 574219 | 6.35303E+12 | 5.59245E+13 | 5326.73 | 0.0002678 | -0.0192773 | 0.0710963 | 0.0082857 | -0.5964397 | 2.1667245 | 2.1667245 |
| 25 | 16:06.7 | 574220 | 6.35303E+12 | 5.59914E+13 | 5330.77 | 0.0002678 | -0.0176475 | 0.0710652 | 0.0082857 | -0.5460137 | 2.1657754 | 2.1657754 |
| 26 | 21:09.7 | 574220 | 6.35303E+12 | 5.59914E+13 | 5343.69 | 0.0002678 | -0.0277873 | 0.0712374 | 0.0082857 | -0.8597391 | 2.1710246 | 2.1710246 |
| 27 | 26:12.7 | 574225 | 6.35303E+12 | 5.59876E+13 | 5336.9 | 0.0002678 | -0.030291 | 0.0711518 | 0.0082857 | -0.9372035 | 2.1684142 | 2.1684142 |
| 28 | 31:15.7 | 574226 | 6.35303E+12 | 5.60441E+13 | 5333.74 | 0.0002678 | -0.0263247 | 0.0710379 | 0.0082857 | -0.8144862 | 2.1649441 | 2.1649441 |
| 29 | 36:18.6 | 574227 | 6.35303E+12 | 5.56725E+13 | 5331.57 | 0.0002678 | -0.0194362 | 0.071483 | 0.0082857 | -0.601356 | 2.1785089 | 2.1785089 |
| 30 | 41:21.5 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | 0.0002678 | -0.0199701 | 0.0714897 | 0.0082857 | -0.6178749 | 2.1787132 | 2.1787132 |
| 31 | 46:24.4 | 574227 | 6.35303E+12 | 5.56725E+13 | 5343.99 | 0.0002678 | -0.0196127 | 0.0716495 | 0.0082857 | -0.6068169 | 2.1835838 | 2.1835838 |
| 32 | 51:27.4 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.99 | 0.0002678 | -0.0293809 | 0.0722038 | 0.0082857 | -0.909045 | 2.2004762 | 2.2004762 |
| 33 | 56:30.6 | 574229 | 6.35303E+12 | 5.5892E+13 | 5328.81 | 0.0002678 | -0.0237092 | 0.0711654 | 0.0082857 | -0.7335626 | 2.1688293 | 2.1688293 |
| 34 | 01:33.6 | 574229 | 6.35303E+12 | 5.5892E+13 | 5339.09 | 0.0001906 | -0.0186177 | 0.0713027 | 0.0058972 | -0.583581 | 2.1730133 | 2.1730133 |
| 35 | 06:36.6 | 574229 | 6.35303E+12 | 5.5892E+13 | 5341.16 | 0.0001906 | -0.0309174 | 0.0713303 | 0.0058972 | -0.9565844 | 2.1738558 | 2.1738558 |
| 36 | 11:39.5 | 574230 | 6.35303E+12 | 5.53347E+13 | 5346.19 | 0.0001906 | -0.0303878 | 0.0721165 | 0.0058972 | -0.9401985 | 2.1978165 | 2.1978165 |
| 37 | 16:43.0 | 574230 | 6.35303E+12 | 5.53347E+13 | 5351.52 | 0.0001906 | -0.0302747 | 0.0721884 | 0.0058972 | -0.9366992 | 2.2000077 | 2.2000077 |
| 38 | 21:45.9 | 574231 | 6.35303E+12 | 5.49411E+13 | 5348.15 | 0.0001906 | -0.0280594 | 0.0726599 | 0.0058972 | -0.8681578 | 2.2143761 | 2.2143761 |
| 39 | 26:48.7 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.36 | 0.0001906 | -0.0282238 | 0.072622 | 0.0058972 | -0.8732444 | 2.2132209 | 2.2132209 |
| 40 | 31:52.1 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.35 | 0.0001906 | -0.0268535 | 0.0726219 | 0.0058972 | -0.8308473 | 2.2132168 | 2.2132168 |
| 41 | 36:55.6 | 574232 | 6.35303E+12 | 5.47061E+13 | 5345.57 | 0.0001906 | -0.0274178 | 0.0729368 | 0.0058972 | -0.8483067 | 2.222815 | 2.222815 |
| 42 | 41:58.8 | 574232 | 6.35303E+12 | 5.47061E+13 | 5346.06 | 0.0001906 | -0.0274027 | 0.0729435 | 0.0058972 | -0.8478395 | 2.2230187 | 2.2230187 |
| 43 | 47:01.8 | 574232 | 6.35303E+12 | 5.47061E+13 | 5364.94 | 0.0001906 | -0.028909 | 0.0732011 | 0.0058972 | -0.8944445 | 2.2308695 | 2.2308695 |
| 44 | 52:04.7 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.68 | 0.0001906 | -0.028169 | 0.0731157 | 0.0058972 | -0.8715489 | 2.2282664 | 2.2282664 |
| 45 | 57:07.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5363.38 | 0.0001906 | -0.0263077 | 0.0731798 | 0.0058972 | -0.8139602 | 2.2302208 | 2.2302208 |
| 46 | 02:11.0 | 574233 | 6.35303E+12 | 5.35475E+13 | 5374.99 | 0.002727 | -0.0263014 | 0.074925 | 0.0843734 | -0.8137653 | 2.283406 | 2.283406 |
| 47 | 07:14.0 | 574233 | 6.35303E+12 | 5.35475E+13 | 5371.65 | 0.002727 | -0.0028313 | 0.0748784 | 0.0843734 | -0.0876004 | 2.2819871 | 2.2819871 |
| 48 | 12:17.0 | 574233 | 6.35303E+12 | 5.35475E+13 | 5364.6 | 0.002727 | -0.0008554 | 0.0747801 | 0.0843734 | -0.0264661 | 2.2789921 | 2.2789921 |
| 49 | 17:20.3 | 574233 | 6.35303E+12 | 5.35475E+13 | 5366.68 | 0.002727 | -0.0182652 | 0.0748091 | 0.0843734 | -0.5651253 | 2.2798757 | 2.2798757 |
| 50 | 22:23.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.76 | 0.002727 | -0.0019519 | 0.0752411 | 0.0843734 | -0.0603918 | 2.2930408 | 2.2930408 |
| 51 | 27:26.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.18 | 0.002727 | -0.0147848 | 0.075233 | 0.0843734 | -0.4574417 | 2.2927926 | 2.2927926 |
| 52 | 32:29.3 | 574234 | 6.35303E+12 | 5.31615E+13 | 5349.69 | 0.002727 | -0.0033411 | 0.0751138 | 0.0843734 | -0.1033736 | 2.2891597 | 2.2891597 |
| 53 | 37:32.1 | 574235 | 6.35303E+12 | 5.26774E+13 | 5347.97 | 0.002727 | -0.016204 | 0.0757796 | 0.0843734 | -0.5013518 | 2.3094528 | 2.3094528 |
| 54 | 42:35.1 | 574236 | 6.35303E+12 | 5.29706E+13 | 5347.88 | 0.002727 | -0.031637 | 0.075359 | 0.0843734 | -0.9788488 | 2.2966332 | 2.2966332 |
| 55 | 47:38.0 | 574237 | 6.35303E+12 | 5.26741E+13 | 5352.24 | 0.002727 | -0.0303036 | 0.075845 | 0.0843734 | -0.9375934 | 2.3114455 | 2.3114455 |
| 56 | 52:40.8 | 574238 | 6.35303E+12 | 5.2719E+13 | 5350.15 | 0.002727 | -0.0054995 | 0.0757508 | 0.0843734 | -0.1701545 | 2.308573 | 2.308573 |
| 57 | 57:43.7 | 574238 | 6.35303E+12 | 5.2719E+13 | 5357.76 | 0.002727 | -0.0016084 | 0.0758585 | 0.0843734 | -0.0497639 | 2.3118566 | 2.3118566 |
| 58 | 02:46.6 | 574239 | 6.35303E+12 | 5.28168E+13 | 5351.07 | 0.0122937 | -0.0317924 | 0.0756235 | 0.3803671 | -0.9836569 | 2.3046947 | 2.3046947 |
| 59 | 07:49.3 | 574240 | 6.35303E+12 | 5.25658E+13 | 5350.11 | 0.0122937 | -0.0305799 | 0.075971 | 0.3803671 | -0.9461421 | 2.3152833 | 2.3152833 |
| 60 | 12:52.7 | 574242 | 6.35303E+12 | 5.34165E+13 | 5352.35 | 0.0122937 | -2.70E-06 | 0.0747924 | 0.3803671 | -8.35E-05 | 2.2793657 | 2.2793657 |
| 61 | 17:55.6 | 574243 | 6.35303E+12 | 5.35108E+13 | 5355.51 | 0.0122937 | 0.0030845 | 0.0747047 | 0.3803671 | 0.0118964 | 2.2766932 | 2.2766932 |
| 62 | 22:58.3 | 574245 | 6.35303E+12 | 5.38531E+13 | 5358.7 | 0.0122937 | 0.000944 | 0.074274 | 0.3803671 | 0.0292074 | 2.2635674 | 2.2635674 |
| 63 | 28:01.2 | 574246 | 6.35303E+12 | 5.41667E+13 | 5358.74 | 0.0122937 | -0.0033438 | 0.0738446 | 0.3803671 | -0.1034572 | 2.2504797 | 2.2504797 |
| 64 | 33:04.2 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.99 | 0.0122937 | -0.001393 | 0.0738894 | 0.3803671 | -0.0430994 | 2.2518446 | 2.2518446 |
| 65 | 38:07.1 | 574246 | 6.35303E+12 | 5.41667E+13 | 5364.93 | 0.0122937 | 0.0048462 | 0.0739299 | 0.3803671 | 0.1499414 | 2.2530793 | 2.2530793 |
| 66 | 43:10.0 | 574247 | 6.35303E+12 | 5.37144E+13 | 5365.93 | 0.0122937 | 0.0058818 | 0.0745663 | 0.3803671 | -0.4821009 | 2.2724742 | 2.2724742 |
| 67 | 48:12.9 | 574249 | 6.35303E+12 | 5.43573E+13 | 5360.33 | 0.0122937 | -0.0014069 | 0.0736074 | 0.3803671 | -0.0435295 | 2.2432526 | 2.2432526 |
| 68 | 53:15.7 | 574251 | 6.35303E+12 | 5.52479E+13 | 5359.19 | 0.0122937 | 0.0018241 | 0.0724055 | 0.3803671 | 0.0564377 | 2.2066234 | 2.2066234 |
| 69 | 58:18.7 | 574252 | 6.35303E+12 | 5.50584E+13 | 5357.99 | 0.0122937 | 0.0017661 | 0.0726385 | 0.3803671 | 0.0546431 | 2.2137229 | 2.2137229 |
| 70 | 03:21.9 | 574252 | 6.35303E+12 | 5.50584E+13 | 5360.64 | 0.0171962 | 0.0051394 | 0.0726744 | 0.5320504 | 0.1590 | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 96 | 14:43.6 | 574269 | 6.35303E+12 | 5.58958E+13 | 5342.94 | 0.0193084 | 0.0088646 | 0.0713492 | 0.5974019 | 0.2742707 | 2.1744317 | 2.1744317 |
| 97 | 19:46.6 | 574270 | 6.35303E+12 | 5.6144E+13 | 5354.22 | 0.0193084 | 0.0082941 | 0.0711837 | 0.5974019 | 0.2566195 | 2.1693883 | 2.1693883 |
| 98 | 24:49.9 | 574271 | 6.35303E+12 | 5.6095E+13 | 5356.83 | 0.0193084 | 0.0080762 | 0.0712807 | 0.5974019 | 0.2498776 | 2.1723438 | 2.1723438 |
| 99 | 29:52.8 | 574271 | 6.35303E+12 | 5.6095E+13 | 5351.83 | 0.0193084 | 0.0079524 | 0.0712142 | 0.5974019 | 0.2460473 | 2.1703161 | 2.1703161 |
| 100 | 34:55.7 | 574272 | 6.35303E+12 | 5.54087E+13 | 5355.01 | 0.0193084 | 0.0081254 | 0.0721391 | 0.5974019 | 0.2513999 | 2.1985034 | 2.1985034 |
| 101 | 39:58.5 | 574273 | 6.35303E+12 | 5.53104E+13 | 5355.83 | 0.0193084 | 0.0085607 | 0.0722783 | 0.5974019 | 0.2648681 | 2.2027469 | 2.2027469 |
| 102 | 45:01.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.54 | 0.0193084 | 0.0106324 | 0.072217 | 0.5974019 | 0.3289665 | 2.2008772 | 2.2008772 |
| 103 | 50:05.0 | 574274 | 6.35303E+12 | 5.53441E+13 | 5352.64 | 0.0193084 | 0.0119823 | 0.0721913 | 0.5974019 | 0.3707324 | 2.2000962 | 2.2000962 |
| 104 | 55:07.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.99 | 0.0193084 | 0.0171955 | 0.0722365 | 0.5974019 | 0.5320288 | 2.2014732 | 2.2014732 |
| 105 | 00:10.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5375.12 | 0.021824 | 0.014679 | 0.0724945 | 0.6752346 | 0.4541683 | 2.2093362 | 2.2093362 |
| 106 | 05:13.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5371.63 | 0.021824 | 0.0098275 | 0.0724475 | 0.6752346 | 0.3040628 | 2.2079017 | 2.2079017 |
| 107 | 10:17.8 | 574274 | 6.35303E+12 | 5.53441E+13 | 5366.65 | 0.021824 | 0.0157044 | 0.0723803 | 0.6752346 | 0.4858941 | 2.2058548 | 2.2058548 |
| 108 | 15:20.8 | 574274 | 6.35303E+12 | 5.53441E+13 | 5362.88 | 0.021824 | 0.0161219 | 0.0723295 | 0.6752346 | 0.4988116 | 2.2043052 | 2.2043052 |
| 109 | 20:23.7 | 574275 | 6.35303E+12 | 5.36343E+13 | 5367 | 0.021824 | 0.016142 | 0.07246925 | 0.6752346 | 0.4994335 | 2.2763203 | 2.2763203 |
| 110 | 25:26.5 | 574275 | 6.35303E+12 | 5.36343E+13 | 5371.56 | 0.021824 | 0.0159439 | 0.0747559 | 0.6752346 | 0.4933043 | 2.2782544 | 2.2782544 |
| 111 | 30:29.4 | 574276 | 6.35303E+12 | 5.309E+13 | 5370.52 | 0.021824 | 0.0201562 | 0.0755079 | 0.6752346 | 0.6236328 | 2.3011697 | 2.3011697 |
| 112 | 35:32.1 | 574278 | 6.35303E+12 | 5.49235E+13 | 5373.23 | 0.021824 | 0.0193584 | 0.0730239 | 0.6752346 | 0.5989489 | 2.2254696 | 2.2254696 |
| 113 | 40:35.0 | 574281 | 6.35303E+12 | 5.67946E+13 | 5385.74 | 0.021824 | 0.0173956 | 0.0707827 | 0.6752346 | 0.5382199 | 2.1571652 | 2.1571652 |
| 114 | 45:37.8 | 574281 | 6.35303E+12 | 5.67946E+13 | 5380.67 | 0.021824 | 0.0172587 | 0.070716 | 0.6752346 | 0.5339842 | 2.1551345 | 2.1551345 |
| 115 | 50:40.6 | 574281 | 6.35303E+12 | 5.67946E+13 | 5377.85 | 0.021824 | 0.0135506 | 0.070679 | 0.6752346 | 0.4192556 | 2.154005 | 2.154005 |
| 116 | 55:43.6 | 574282 | 6.35303E+12 | 5.6096E+13 | 5376.85 | 0.021824 | 0.0181589 | 0.0715459 | 0.6752346 | 0.5618364 | 2.1804251 | 2.1804251 |
| 117 | 00:46.5 | 574282 | 6.35303E+12 | 5.6096E+13 | 5379.99 | 0.0237731 | 0.0180514 | 0.0715877 | 0.7355397 | 0.5585103 | 2.1816984 | 2.1816984 |
| 118 | 05:49.7 | 574283 | 6.35303E+12 | 5.56063E+13 | 5400.03 | 0.0237731 | 0.0201106 | 0.0724871 | 0.7355397 | 0.622222 | 2.2091081 | 2.2091081 |
| 119 | 10:52.9 | 574283 | 6.35303E+12 | 5.56063E+13 | 5401.02 | 0.0237731 | 0.0199693 | 0.0725003 | 0.7355397 | 0.6178501 | 2.2095131 | 2.2095131 |
| 120 | 15:55.8 | 574283 | 6.35303E+12 | 5.56063E+13 | 5411.08 | 0.0237731 | 0.0212877 | 0.0726354 | 0.7355397 | 0.6586414 | 2.2136286 | 2.2136286 |
| 121 | 20:59.8 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.02 | 0.0237731 | 0.0208648 | 0.0714563 | 0.7355397 | 0.6455569 | 2.177694 | 2.177694 |
| 122 | 26:03.1 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.31 | 0.0237731 | 0.0203588 | 0.0714601 | 0.7355397 | 0.6299013 | 2.1778109 | 2.1778109 |
| 123 | 31:06.6 | 574285 | 6.35303E+12 | 5.57835E+13 | 5409.35 | 0.0237731 | 0.0207637 | 0.0723816 | 0.7355397 | 0.6424289 | 2.2058933 | 2.2058933 |
| 124 | 36:09.6 | 574285 | 6.35303E+12 | 5.57835E+13 | 5396.6 | 0.0237731 | 0.0198566 | 0.072211 | 0.7355397 | 0.6143632 | 2.2006939 | 2.2006939 |
| 125 | 41:12.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0237731 | 0.0206568 | 0.0723309 | 0.7355397 | 0.6391214 | 2.2043478 | 2.2043478 |
| 126 | 46:15.4 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.1 | 0.0237731 | 0.0203991 | 0.0722712 | 0.7355397 | 0.6311482 | 2.202529 | 2.202529 |
| 127 | 51:18.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5400.14 | 0.0237731 | 0.0206351 | 0.0722583 | 0.7355397 | 0.63845 | 2.2021375 | 2.2021375 |
| 128 | 56:21.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.59 | 0.0237731 | 0.0206066 | 0.0722777 | 0.7355397 | 0.6375682 | 2.2027288 | 2.2027288 |
| 129 | 01:25.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0248369 | 0.0206776 | 0.0723309 | 0.7684537 | 0.6397649 | 2.2043478 | 2.2043478 |
| 130 | 06:28.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5409.65 | 0.0248369 | 0.0208352 | 0.0723856 | 0.7684537 | 0.6446411 | 2.2060156 | 2.2060156 |
| 131 | 11:31.3 | 574286 | 6.35303E+12 | 5.36818E+13 | 5410.84 | 0.0248369 | 0.0207924 | 0.075236 | 0.7684537 | 0.6433169 | 2.2928844 | 2.2928844 |
| 132 | 16:34.7 | 574287 | 6.35303E+12 | 5.50908E+13 | 5403.01 | 0.0248369 | 0.020789 | 0.0732057 | 0.7684537 | 0.6432117 | 2.2310097 | 2.2310097 |
| 133 | 21:38.0 | 574287 | 6.35303E+12 | 5.50908E+13 | 5380.86 | 0.0248369 | 0.0208418 | 0.0729056 | 0.7684537 | 0.6448453 | 2.2218635 | 2.2218635 |
| 134 | 26:41.1 | 574288 | 6.35303E+12 | 5.6446E+13 | 5384.99 | 0.0248369 | 0.0208444 | 0.0712098 | 0.7684537 | 0.6449257 | 2.1701832 | 2.1701832 |
| 135 | 31:44.2 | 574289 | 6.35303E+12 | 5.61643E+13 | 5388.52 | 0.0248369 | 0.0219035 | 0.071614 | 0.7684537 | 0.6776943 | 2.1824996 | 2.1824996 |
| 136 | 36:47.6 | 574289 | 6.35303E+12 | 5.61643E+13 | 5385.01 | 0.0248369 | 0.0219719 | 0.0715673 | 0.7684537 | 0.6798106 | 2.1810779 | 2.1810779 |
| 137 | 41:50.8 | 574289 | 6.35303E+12 | 5.61643E+13 | 5382.53 | 0.0248369 | 0.0214093 | 0.0715343 | 0.7684537 | 0.6624037 | 2.1800735 | 2.1800735 |
| 138 | 46:53.8 | 574289 | 6.35303E+12 | 5.61643E+13 | 5379.16 | 0.0248369 | 0.0219768 | 0.0714896 | 0.7684537 | 0.6799622 | 2.1787085 | 2.1787085 |
| 139 | 51:56.9 | 574292 | 6.35303E+12 | 5.59818E+13 | 5379.99 | 0.0248369 | 0.0220687 | 0.0717336 | 0.7684537 | 0.6828056 | 2.1861462 | 2.1861462 |
| 140 | 57:00.0 | 574293 | 6.35303E+12 | 5.63654E+13 | 5381.68 | 0.0248369 | 0.0220272 | 0.0712679 | 0.7684537 | 0.6815216 | 2.1719525 | 2.1719525 |
| 141 | 02:02.8 | 574294 | 6.35303E+12 | 5.66874E+13 | 5378.04 | 0.026102 | 0.0214717 | 0.0708151 | 0.8075959 | 0.6643344 | 2.1581537 | 2.1581537 |
| 142 | 07:05.8 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.026102 | 0.0216698 | 0.0704165 | 0.8075959 | 0.6704636 | 2.1460054 | 2.1460054 |
| 143 | 12:09.0 | 574296 | 6.35303E+12 | 5.69506E+13 | 5391.26 | 0.026102 | 0.0218279 | 0.070661 | 0.8075959 | 0.6753552 | 2.1534583 | 2.1534583 |
| 144 | 17:12.0 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.44 | 0.026102 | 0.0242173 | 0.0696352 | 0.8075959 | 0.7492833 | 2.1221966 | 2.1221966 |
| 145 | 22:15.5 | 574298 | 6.35303E+12 | 5.77593E+13 | 5392.01 | 0.026102 | 0.0224338 | 0.0696814 | 0.8075959 | 0.6941018 | 2.1236027 | 2.1236027 |
| 146 | 27:18.5 | 574298 | 6.35303E+12 | 5.77593E+13 | 5397.27 | 0.026102 | 0.0259045 | 0.0697494 | 0.8075959 | 0.8014852 | 2.1256743 | 2.1256743 |
| 147 | 32:21.8 | 574300 | 6.35303E+12 | 5.74492E+13 | 5392.2 | 0.026102 | 0.0266314 | 0.07006 | 0.8075959 | 0.8239755 | 2.1351406 | 2.1351406 |
| 148 | 37:25.9 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.27 | 0.026102 | 0.0805755 | 0.0698488 | 0.8075959 | 2.632236 | 2.1287047 | 2.1287047 |
| 149 | 42:30.2 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.55 | 0.026102 | 0.2222933 | 0.0698524 | 0.8075959 | 6.8777547 | 2.1288153 | 6.8777547 |
| 150 | 47:34.8 | 574302 | 6.35303E+12 | 5.77583E+13 | 5397.52 | 0.026102 | 0.0579206 | 0.0697538 | 0.8075959 | 4.8860634 | 2.1285102 | 4.8860634 |
| 151 | 52:39.0 | 574302 | 6.35303E+12 | 5.77583E+13 | 5396.44 | 0.026102 | 0.1798101 | 0.0697399 | 0.8075959 | 5.5633245 | 2.1253849 | 5.5633245 |
| 152 | 57:42.9 | 574305 | 6.35303E+12 | 5.8471E+13 | 5390.94 | 0.026102 | 0.1776521 | 0.0688196 | 0.8075959 | 5.496556 | 2.097339 | 5.496556 |
| 153 | 02:47.4 | 574305 | 6.35303E+12 | 5.8471E+13 | 5391.58 | 0.0283817 | 0.2214449 | 0.0688278 | 0.8781298 | 6.8515052 | 2.097588 | 6.8515052 |
| 154 | 07:50.3 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.02 | 0.0283817 | 0.0381924 | 0.0688461 | 0.8781298 | 1.1816729 | 2.0981483 | 2.0981483 |
| 155 | 12:53.3 | 574306 | 6.35303E+12 | 5.85526E+13 | 5393.03 | 0.0283817 | 0.0284554 | 0.0687504 | 0.8781298 | 0.8804101 | 2.0952297 | 2.0952297 |
| 156 | 17:56.2 | 574309 | 6.35303E+12 | 6.00748E+13 | 5395.99 | 0.0283817 | 0.0254553 | 0.0670451 | 0.8781298 | 0.787587 | 2.0432598 | 2.0432598 |
| 157 | 22:59.6 | 574309 | 6.35303E+12 | 6.00748E+13 | 5395.98 | 0.0283817 | 0.0262791 | 0.067045 | 0.8781298 | 0.8130754 | 2.043256 | 2.043256 |
| 158 | 28:03.3 | 574310 | 6.35303E+12 | 6.02983E+13 | 5397.49 | 0.0283817 | 0.0261018 | 0.0668152 | 0.8781298 | 0.8075897 | 2.0362532 | 2.0362532 |
| 159 | 33:06.3 | 574311 | 6.35303E+12 | 6.01255E+13 | 5398.95 | 0.0283817 | 0.0304073 | 0.0670253 | 0.8781298 | 0.9408019 | 2.0426553 | 2.0426553 |
| 160 | 38:09.3 | 574312 | 6.35303E+12 | 5.99055E+13 | 5397.51 | 0.0283817 | 0.0304044 | 0.0672535 | 0.8781298 | 0.9407121 | 2.0496101 | 2.0496101 |
| 161 | 43:12.3 | 574312 | 6.35303E+12 | 5.99055E+13 | 5396.26 | 0.0283817 | 0.0304045 | 0.0672379 | 0.8781298 | 0.9419838 | 2.0491354 | 2.0491354 |
| 162 | 48:15.1 | 574314 | 6.35303E+12 | 5.98595E+13 | 5395.6 | 0.0283817 | 0.0262044 | 0.0672813 | 0.8781298 | 0.8107641 | 2.0504592 | 2.0504592 |
| 163 | 53:18.0 | 574315 | 6.35303E+12 | 5.97623E+13 | 5391.83 | 0.0283817 | 0.0289928 | 0.0673437 | 0.8781298 | 0.8970372 | 2.0523603 | 2.0523603 |
| 164 | 58:21.0 | 574315 | 6.35303E+12 | 5.97623E+13 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 09:43.0 | 574327 | 6.35303E+12 | 5.96067E+13 | 5400.79 | 0.0303728 | 0.0289272 | 0.0676317 | 0.9397344 | 0.8950076 | 2.0611364 | 2.0611364 |
| 191 | 14:45.8 | 574327 | 6.35303E+12 | 5.96067E+13 | 5402.51 | 0.0303728 | 0.0277593 | 0.0676532 | 0.9397344 | 0.8588727 | 2.0617928 | 2.0617928 |
| 192 | 19:48.6 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.01 | 0.0303728 | 0.0260079 | 0.0676069 | 0.9397344 | 0.8046844 | 2.0603812 | 2.0603812 |
| 193 | 24:53.1 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.56 | 0.0303728 | 0.027473 | 0.0676138 | 0.9397344 | 0.8500146 | 2.0605909 | 2.0605909 |
| 194 | 29:56.2 | 574328 | 6.35303E+12 | 5.96752E+13 | 5413.98 | 0.0303728 | 0.0272669 | 0.0677191 | 0.9397344 | 0.8436379 | 2.0638005 | 2.0638005 |
| 195 | 34:59.4 | 574329 | 6.35303E+12 | 5.94855E+13 | 5414.16 | 0.0303728 | 0.027398 | 0.0679373 | 0.9397344 | 0.8476941 | 2.0704516 | 2.0704516 |
| 196 | 40:02.3 | 574330 | 6.35303E+12 | 5.97035E+13 | 5414.01 | 0.0303728 | 0.0273913 | 0.0676874 | 0.9397344 | 0.8474868 | 2.0628341 | 2.0628341 |
| 197 | 45:05.1 | 574331 | 6.35303E+12 | 5.96567E+13 | 5411.51 | 0.0303728 | 0.0260921 | 0.0677092 | 0.9397344 | 0.8072896 | 2.0634981 | 2.0634981 |
| 198 | 50:08.5 | 574333 | 6.35303E+12 | 5.9734E+13 | 5408.31 | 0.0303728 | 0.0272287 | 0.0675816 | 0.9397344 | 0.842456 | 2.0596102 | 2.0596102 |
| 199 | 55:11.1 | 574333 | 6.35303E+12 | 5.9734E+13 | 5400.01 | 0.0303728 | 0.0272351 | 0.0674779 | 0.9397344 | 0.842654 | 2.0564494 | 2.0564494 |
| 200 | 05:16.6 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.72 | 0.0292151 | 0.0284932 | 0.0683055 | 0.9039152 | 0.8815796 | 2.0816708 | 2.0816708 |
| 201 | 10:20.2 | 574337 | 6.35303E+12 | 6.04407E+13 | 5401.43 | 0.0292151 | 0.0273247 | 0.0667064 | 0.9039152 | 0.8454262 | 2.0329364 | 2.0329364 |
| 202 | 15:23.2 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.84 | 0.0292151 | 0.0270874 | 0.0667361 | 0.9039152 | 0.8380842 | 2.0338434 | 2.0338434 |
| 203 | 20:26.3 | 574340 | 6.35303E+12 | 6.01388E+13 | 5404.02 | 0.0292151 | 0.0266421 | 0.0670734 | 0.9039152 | 0.8243066 | 2.044123 | 2.044123 |
| 204 | 30:31.9 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.55 | 0.0292151 | 0.0261271 | 0.0667116 | 0.9039152 | 0.8083725 | 2.0330975 | 2.0330975 |
| 205 | 35:34.8 | 574343 | 6.35303E+12 | 5.99395E+13 | 5400.01 | 0.0292151 | 0.0267626 | 0.0672465 | 0.9039152 | 0.8280348 | 2.0493965 | 2.0493965 |
| 206 | 40:37.9 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.02 | 0.0292151 | 0.0266166 | 0.0672341 | 0.9039152 | 0.8235176 | 2.0490207 | 2.0490207 |
| 207 | 45:41.0 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.0292151 | 0.0272594 | 0.0676328 | 0.9039152 | 0.8434058 | 2.0611697 | 2.0611697 |
| 208 | 50:43.8 | 574344 | 6.35303E+12 | 5.95861E+13 | 5394.85 | 0.0292151 | 0.0266036 | 0.0675807 | 0.9039152 | 0.8231154 | 2.0595816 | 2.0595816 |
| 209 | 55:46.5 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.35 | 0.0292151 | 0.0268144 | 0.0676245 | 0.9039152 | 0.8296375 | 2.0609177 | 2.0609177 |
| 210 | 00:51.0 | 574345 | 6.35303E+12 | 5.83668E+13 | 5398.44 | 0.0282594 | 0.0283316 | 0.0690384 | 0.8743458 | 7.0645797 | 2.1040074 | 2.0645797 |
| 211 | 05:53.8 | 574346 | 6.35303E+12 | 5.84022E+13 | 5394.51 | 0.0282594 | 0.0270103 | 0.0689463 | 0.8743458 | 0.8356987 | 2.1012014 | 2.1012014 |
| 212 | 10:57.1 | 574347 | 6.35303E+12 | 5.86008E+13 | 5396.65 | 0.0282594 | 0.0270877 | 0.0687399 | 0.8743458 | 0.8380934 | 2.0949115 | 2.0949115 |
| 213 | 16:00.5 | 574347 | 6.35303E+12 | 5.86008E+13 | 5399.98 | 0.0282594 | 0.0272394 | 0.0687824 | 0.8743458 | 0.842787 | 2.0962041 | 2.0962041 |
| 214 | 21:03.5 | 574348 | 6.35303E+12 | 5.87322E+13 | 5397.6 | 0.0282594 | 0.0269131 | 0.0685982 | 0.8743458 | 0.8326913 | 2.0905929 | 2.0905929 |
| 215 | 26:07.8 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.94 | 0.0282594 | 0.0272329 | 0.0685898 | 0.8743458 | 7.0305859 | 2.030373 | 7.0305859 |
| 216 | 31:11.2 | 574349 | 6.35303E+12 | 5.84595E+13 | 5395.06 | 0.0282594 | 0.0368119 | 0.0688857 | 0.8743458 | 1.1389602 | 2.0993542 | 2.0993542 |
| 217 | 36:14.2 | 574350 | 6.35303E+12 | 5.91267E+13 | 5396.77 | 0.0282594 | 0.0273647 | 0.06813 | 0.8743458 | 0.8466638 | 2.0763241 | 2.0763241 |
| 218 | 41:17.0 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.88 | 0.0282594 | 0.0250754 | 0.0681188 | 0.8743458 | 0.7758329 | 2.0759816 | 2.0759816 |
| 219 | 46:20.3 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.8 | 0.0282594 | 0.0257701 | 0.0679751 | 0.8743458 | 0.7973269 | 2.0716025 | 2.0716025 |
| 220 | 51:23.3 | 574351 | 6.35303E+12 | 5.92508E+13 | 5393.06 | 0.0282594 | 0.0249811 | 0.0679406 | 0.8743458 | 0.7729152 | 2.0705505 | 2.0705505 |
| 221 | 56:25.9 | 574351 | 6.35303E+12 | 5.92508E+13 | 5391.33 | 0.0282594 | 0.0252147 | 0.0679188 | 0.8743458 | 0.7801428 | 2.0698863 | 2.0698863 |
| 222 | 01:28.7 | 574351 | 6.35303E+12 | 5.92508E+13 | 5390.01 | 0.0294875 | 0.0252863 | 0.0679022 | 0.9123433 | 0.7823581 | 2.0693795 | 2.0693795 |
| 223 | 06:31.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5374.44 | 0.0294875 | 0.0227695 | 0.067706 | 0.9123433 | 0.7044883 | 2.0634017 | 2.0634017 |
| 224 | 11:34.6 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.81 | 0.0294875 | 0.0228204 | 0.0676729 | 0.9123433 | 0.7060632 | 2.062392 | 2.062392 |
| 225 | 16:37.4 | 574352 | 6.35303E+12 | 5.79249E+13 | 5372.6 | 0.0294875 | 0.024445 | 0.0692321 | 0.9123433 | 0.7563283 | 2.1099115 | 2.1099115 |
| 226 | 21:40.3 | 574353 | 6.35303E+12 | 5.95341E+13 | 5377.77 | 0.0294875 | 0.0231413 | 0.0674255 | 0.9123433 | 0.7159918 | 2.0548543 | 2.0548543 |
| 227 | 26:43.1 | 574353 | 6.35303E+12 | 5.95341E+13 | 5384.99 | 0.0294875 | 0.0250495 | 0.0675161 | 0.9123433 | 0.7750315 | 2.0576131 | 2.0576131 |
| 228 | 31:45.9 | 574353 | 6.35303E+12 | 5.95341E+13 | 5393.61 | 0.0294875 | 0.0254698 | 0.0676241 | 0.9123433 | 0.7880356 | 2.0609068 | 2.0609068 |
| 229 | 36:48.6 | 574353 | 6.35303E+12 | 5.95341E+13 | 5395.02 | 0.0294875 | 0.0250496 | 0.0676418 | 0.9123433 | 0.786173 | 2.0614455 | 2.0614455 |
| 230 | 41:51.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5401.49 | 0.0294875 | 0.0250828 | 0.0677229 | 0.9123433 | 0.7760618 | 2.0639177 | 2.0639177 |
| 231 | 46:55.3 | 574356 | 6.35303E+12 | 6.01278E+13 | 5393.39 | 0.0294875 | 0.0235193 | 0.0669538 | 0.9123433 | 0.7276871 | 2.0404768 | 2.0404768 |
| 232 | 51:58.7 | 574356 | 6.35303E+12 | 6.01278E+13 | 5401.9 | 0.0294875 | 0.0249891 | 0.0670594 | 0.9123433 | 0.7731628 | 2.0436963 | 2.0436963 |
| 233 | 57:01.6 | 574357 | 6.35303E+12 | 5.98782E+13 | 5404.01 | 0.0294875 | 0.0221317 | 0.0673653 | 0.9123433 | 0.6847548 | 2.0530169 | 2.0530169 |
| 234 | 02:04.6 | 574357 | 6.35303E+12 | 5.98782E+13 | 5410.44 | 0.0358722 | 0.021966 | 0.0674454 | 1.1098859 | 0.679628 | 2.0554597 | 2.0554597 |
| 235 | 07:08.5 | 574357 | 6.35303E+12 | 5.98782E+13 | 5413.48 | 0.0358722 | 0.0217579 | 0.0674833 | 1.1098859 | 0.6731894 | 2.0566147 | 2.0566147 |
| 236 | 12:11.9 | 574359 | 6.35303E+12 | 5.99023E+13 | 5412.99 | 0.0358722 | 0.0219837 | 0.0674501 | 1.1098859 | 0.6801757 | 2.0556012 | 2.0556012 |
| 237 | 17:15.2 | 574360 | 6.35303E+12 | 6.0023E+13 | 5413.64 | 0.0358722 | 0.0220791 | 0.0673224 | 1.1098859 | 0.6831274 | 2.0517109 | 2.0517109 |
| 238 | 22:18.3 | 574360 | 6.35303E+12 | 6.0023E+13 | 5409.57 | 0.0358722 | 0.0229158 | 0.0672718 | 1.1098859 | 0.7090149 | 2.0501684 | 2.0501684 |
| 239 | 27:22.6 | 574360 | 6.35303E+12 | 6.0023E+13 | 5403.2 | 0.0358722 | 0.0226755 | 0.0671926 | 1.1098859 | 0.70158 | 2.0477543 | 2.0477543 |
| 240 | 32:25.6 | 574361 | 6.35303E+12 | 5.95038E+13 | 5409.65 | 0.0358722 | 0.0247112 | 0.0678598 | 1.1098859 | 0.7645645 | 2.068088 | 2.068088 |
| 241 | 37:29.5 | 574361 | 6.35303E+12 | 5.95038E+13 | 5414.99 | 0.0358722 | 0.0361625 | 0.0679268 | 1.1098859 | 1.1188678 | 2.0701294 | 2.0701294 |
| 242 | 42:32.7 | 574362 | 6.35303E+12 | 5.87448E+13 | 5422.88 | 0.0358722 | 0.0240264 | 0.0689047 | 1.1098859 | 0.7433768 | 2.0999322 | 2.0999322 |
| 243 | 47:36.4 | 574362 | 6.35303E+12 | 5.87448E+13 | 5432.58 | 0.0358722 | 0.0226338 | 0.0690279 | 1.1098859 | 0.7002898 | 2.1036884 | 2.1036884 |
| 244 | 52:39.7 | 574362 | 6.35303E+12 | 5.87448E+13 | 5428.01 | 0.0358722 | 0.0242397 | 0.0689699 | 1.1098859 | 0.7499763 | 2.1019188 | 2.1019188 |
| 245 | 57:42.7 | 574363 | 6.35303E+12 | 5.80502E+13 | 5427.15 | 0.0358722 | 0.032838 | 0.0697841 | 1.1098859 | 1.0160077 | 2.1267343 | 2.1267343 |
| 246 | 02:45.9 | 574364 | 6.35303E+12 | 5.78645E+13 | 5427.23 | 0.0269724 | 0.048486 | 0.0700091 | 0.8345261 | 1.5001568 | 2.1335902 | 2.1335902 |
| 247 | 07:49.0 | 574364 | 6.35303E+12 | 5.78645E+13 | 5441.99 | 0.0269724 | 0.0436141 | 0.0701995 | 0.8345261 | 1.3494203 | 2.1393928 | 2.1393928 |
| 248 | 12:51.9 | 574365 | 6.35303E+12 | 5.73396E+13 | 5428.97 | 0.0269724 | 0.0245126 | 0.0706726 | 0.8345261 | 0.7584198 | 2.1538115 | 2.1538115 |
| 249 | 17:54.9 | 574367 | 6.35303E+12 | 5.84533E+13 | 5439.06 | 0.0269724 | 0.0248829 | 0.069455 | 0.8345261 | 0.7698769 | 2.1167024 | 2.1167024 |
| 250 | 22:58.1 | 574367 | 6.35303E+12 | 5.84533E+13 | 5434.48 | 0.0269724 | 0.023335 | 0.0693965 | 0.8345261 | 0.7225424 | 2.1149201 | 2.1149201 |
| 251 | 28:01.3 | 574368 | 6.35303E+12 | 5.81378E+13 | 5438.3 | 0.0269724 | 0.0216344 | 0.0698221 | 0.8345261 | 0.6693683 | 2.1278923 | 2.1278923 |
| 252 | 33:04.7 | 574368 | 6.35303E+12 | 5.81378E+13 | 5439.66 | 0.0269724 | 0.0213325 | 0.0698396 | 0.8345261 | 0.6600276 | 2.1284244 | 2.1284244 |
| 253 | 38:08.1 | 574369 | 6.35303E+12 | 5.7527E+13 | 5442.57 | 0.0269724 | 0.0208711 | 0.0706189 | 0.8345261 | 0.6440811 | 2.1521741 | 2.1521741 |
| 254 | 43:11.1 | 574370 | 6.35303E+12 | 5.73316E+13 | 5444.99 | 0.0269724 | 0.0201683 | 0.0708911 | 0.8345261 | 0.6240072 | 2.1604697 | 2.1604697 |
| 255 | 48:14.1 | 574370 | 6.35303E+12 | 5.73316E+13 | 5466.35 | 0.0269724 | 0.0200828 | 0.0711692 | 0.8345261 | 0.6213618 | 2.1689449 | 2.1689449 |
| 256 | 53:17.4 | 574370 | 6.35303E+12 | 5.73316E+13 | 5469.28 | 0.0269724 | 0.0197299 | 0.0712073 | 0.8345261 | 0.6104431 | 2.1701075 | 2.1701075 |
| 257 | 58:20.4 | 574373 | 6.35303E+12 | 5.75391E+13 | 5468.81 | 0.0269724 | 0.0200014 | 0.0709444 | 0.8345261 | 0.6188433 | 2.1620944 | 2.1620944 |
| 258 | 03:23.6 | 5743 | | | | | | | | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 284 | 25:19.0 | 574393 | 6.35303E+12 | 5.4543E+13 | 5532.49 | 0.0169796 | 0.0194997 | 0.075713 | 0.5253488 | 0.6033207 | 2.3074208 | 2.3074208 |
| 285 | 30:22.4 | 574393 | 6.35303E+12 | 5.4543E+13 | 5536.93 | 0.0169796 | 0.01969 | 0.0757737 | 0.5253488 | 0.6092086 | 2.3092726 | 2.3092726 |
| 286 | 35:25.7 | 574393 | 6.35303E+12 | 5.4543E+13 | 5564.48 | 0.0169796 | 0.0196471 | 0.0761508 | 0.5253488 | 0.6078813 | 2.3207628 | 2.3207628 |
| 287 | 40:28.5 | 574394 | 6.35303E+12 | 5.38779E+13 | 5538.44 | 0.0169796 | 0.0199408 | 0.0767299 | 0.5253488 | 0.6169684 | 2.3384139 | 2.3384139 |
| 288 | 45:31.4 | 574395 | 6.35303E+12 | 5.53825E+13 | 5520.08 | 0.0169796 | 0.0196539 | 0.074398 | 0.5253488 | 0.6080917 | 2.2673468 | 2.2673468 |
| 289 | 50:34.1 | 574395 | 6.35303E+12 | 5.53825E+13 | 5520.48 | 0.0169796 | 0.0197095 | 0.0744034 | 0.5253488 | 0.6098119 | 2.2675111 | 2.2675111 |
| 290 | 55:37.0 | 574395 | 6.35303E+12 | 5.53825E+13 | 5515.98 | 0.0169796 | 0.0193539 | 0.0743428 | 0.5253488 | 0.5988097 | 2.2656627 | 2.2656627 |
| 291 | 00:39.8 | 574395 | 6.35303E+12 | 5.53825E+13 | 5518.69 | 0.0176483 | 0.0193487 | 0.0743793 | 0.5460384 | 0.5986488 | 2.2667759 | 2.2667759 |
| 292 | 05:43.2 | 574395 | 6.35303E+12 | 5.53825E+13 | 5531.68 | 0.0176483 | 0.0192843 | 0.0745544 | 0.5460384 | 0.5966624 | 2.2721114 | 2.2721114 |
| 293 | 10:46.2 | 574395 | 6.35303E+12 | 5.53825E+13 | 5528.2 | 0.0176483 | 0.0191026 | 0.0745075 | 0.5460384 | 0.5910344 | 2.270682 | 2.270682 |
| 294 | 15:49.5 | 574396 | 6.35303E+12 | 5.44713E+13 | 5541.2 | 0.0176483 | 0.0190542 | 0.075932 | 0.5460384 | 0.5895369 | 2.3140947 | 2.3140947 |
| 295 | 20:52.5 | 574396 | 6.35303E+12 | 5.44713E+13 | 5544.69 | 0.0176483 | 0.0190808 | 0.0759798 | 0.5460384 | 0.59036 | 2.3155521 | 2.3155521 |
| 296 | 25:55.5 | 574396 | 6.35303E+12 | 5.44713E+13 | 5552.98 | 0.0176483 | 0.019178 | 0.0760934 | 0.5460384 | 0.5933673 | 2.3190142 | 2.3190142 |
| 297 | 30:59.2 | 574397 | 6.35303E+12 | 5.38389E+13 | 5536.99 | 0.0176483 | 0.018807 | 0.0767654 | 0.5460384 | 0.5818886 | 2.3394943 | 2.3394943 |
| 298 | 41:05.7 | 574397 | 6.35303E+12 | 5.38389E+13 | 5578.73 | 0.0176483 | 0.0189594 | 0.0773441 | 0.5460384 | 0.5866038 | 2.3571303 | 2.3571303 |
| 299 | 46:09.1 | 574397 | 6.35303E+12 | 5.38389E+13 | 5587.27 | 0.0176483 | 0.0190541 | 0.0774625 | 0.5460384 | 0.5895339 | 2.3607386 | 2.3607386 |
| 300 | 51:12.8 | 574397 | 6.35303E+12 | 5.38389E+13 | 5577.62 | 0.0176483 | 0.0195343 | 0.0773287 | 0.5460384 | 0.6043912 | 2.3566613 | 2.3566613 |
| 301 | 56:15.8 | 574397 | 6.35303E+12 | 5.38389E+13 | 5578.43 | 0.0176483 | 0.0195897 | 0.0773399 | 0.5460384 | 0.6061053 | 2.3570036 | 2.3570036 |
| 302 | 01:18.8 | 574398 | 6.35303E+12 | 5.24135E+13 | 5585.77 | 0.0178528 | 0.0199086 | 0.0795478 | 0.5523656 | 0.6159721 | 2.42429 | 2.42429 |
| 303 | 06:21.7 | 574399 | 6.35303E+12 | 5.22154E+13 | 5570.36 | 0.0178528 | 0.0200685 | 0.0796293 | 0.5523656 | 0.6209194 | 2.4267736 | 2.4267736 |
| 304 | 11:24.5 | 574400 | 6.35303E+12 | 5.19602E+13 | 5563.2 | 0.0178528 | 0.0198898 | 0.0799175 | 0.5523656 | 0.6153904 | 2.4355582 | 2.4355582 |
| 305 | 16:27.7 | 574400 | 6.35303E+12 | 5.19602E+13 | 5579.23 | 0.0178528 | 0.0199775 | 0.0801478 | 0.5523656 | 0.6181039 | 2.4425761 | 2.4425761 |
| 306 | 21:30.9 | 574400 | 6.35303E+12 | 5.19602E+13 | 5571.91 | 0.0178528 | 0.0199738 | 0.0800426 | 0.5523656 | 0.6179894 | 2.4393714 | 2.4393714 |
| 307 | 26:33.7 | 574401 | 6.35303E+12 | 5.14241E+13 | 5570.27 | 0.0178528 | 0.0201313 | 0.0808533 | 0.5523656 | 0.6228624 | 2.4640783 | 2.4640783 |
| 308 | 31:36.6 | 574402 | 6.35303E+12 | 5.15991E+13 | 5562.53 | 0.0178528 | 0.0200901 | 0.0804671 | 0.5523656 | 0.6215877 | 2.4523071 | 2.4523071 |
| 309 | 36:39.5 | 574402 | 6.35303E+12 | 5.15991E+13 | 5598.28 | 0.0178528 | 0.0208943 | 0.0809843 | 0.5523656 | 0.6448855 | 2.4680679 | 2.4680679 |
| 310 | 41:42.6 | 574404 | 6.35303E+12 | 5.22163E+13 | 5622.51 | 0.0178528 | 0.0203289 | 0.0803735 | 0.5523656 | 0.6289762 | 2.4494541 | 2.4494541 |
| 311 | 46:45.4 | 574405 | 6.35303E+12 | 5.26766E+13 | 5610.46 | 0.0178528 | 0.0231107 | 0.0795004 | 0.5523656 | 0.6902931 | 2.4228448 | 2.4228448 |
| 312 | 51:48.0 | 574406 | 6.35303E+12 | 5.44332E+13 | 5697.34 | 0.0178528 | 0.0203729 | 0.0781261 | 0.5523656 | 0.6303375 | 2.3809636 | 2.3809636 |
| 313 | 56:51.2 | 574407 | 6.35303E+12 | 5.44179E+13 | 5660.07 | 0.0178528 | 0.0202985 | 0.077637 | 0.5523656 | 0.6280356 | 2.3660567 | 2.3660567 |
| 314 | 01:53.8 | 574407 | 6.35303E+12 | 5.44179E+13 | 5667.78 | 0.018673 | 0.019187 | 0.0777427 | 0.5777426 | 0.5936458 | 2.3692797 | 2.3692797 |
| 315 | 06:56.8 | 574408 | 6.35303E+12 | 5.43366E+13 | 5661.93 | 0.018673 | 0.0198179 | 0.0777787 | 0.5777426 | 0.6131658 | 2.3703744 | 2.3703744 |
| 316 | 11:59.7 | 574409 | 6.35303E+12 | 5.45039E+13 | 5688.4 | 0.018673 | 0.0201109 | 0.0779024 | 0.5777426 | 0.6222312 | 2.3741451 | 2.3741451 |
| 317 | 17:02.5 | 574409 | 6.35303E+12 | 5.45039E+13 | 5705.82 | 0.018673 | 0.0203436 | 0.0781409 | 0.5777426 | 0.629431 | 2.3814156 | 2.3814156 |
| 318 | 22:05.5 | 574409 | 6.35303E+12 | 5.45039E+13 | 5684.26 | 0.018673 | 0.0227072 | 0.0778457 | 0.5777426 | 0.7025608 | 2.3724172 | 2.3724172 |
| 319 | 27:08.6 | 574410 | 6.35303E+12 | 5.4739E+13 | 5675.94 | 0.018673 | 0.020882 | 0.0773979 | 0.5777426 | 0.6460891 | 2.3587711 | 2.3587711 |
| 320 | 32:12.0 | 574410 | 6.35303E+12 | 5.4739E+13 | 5704.8 | 0.018673 | 0.0217919 | 0.0777915 | 0.5777426 | 0.6742414 | 2.3707646 | 2.3707646 |
| 321 | 37:15.1 | 574410 | 6.35303E+12 | 5.4739E+13 | 5701.98 | 0.018673 | 0.0218761 | 0.077753 | 0.5777426 | 0.6768465 | 2.3695926 | 2.3695926 |
| 322 | 42:18.0 | 574410 | 6.35303E+12 | 5.4739E+13 | 5732.34 | 0.018673 | 0.0216156 | 0.078167 | 0.5777426 | 0.6687867 | 2.3822095 | 2.3822095 |
| 323 | 47:21.3 | 574410 | 6.35303E+12 | 5.4739E+13 | 5753.01 | 0.018673 | 0.0231724 | 0.0784489 | 0.5777426 | 0.7169541 | 2.3907994 | 2.3907994 |
| 324 | 52:24.4 | 574410 | 6.35303E+12 | 5.4739E+13 | 5756.81 | 0.018673 | 0.0236957 | 0.0785007 | 0.5777426 | 0.733145 | 2.3923786 | 2.3923786 |
| 325 | 07:33.5 | 574412 | 6.35303E+12 | 5.33495E+13 | 5695.4 | 0.0236366 | 0.0226621 | 0.0796861 | 0.7313164 | 0.7011654 | 2.4285046 | 2.4285046 |
| 326 | 12:36.5 | 574412 | 6.35303E+12 | 5.33495E+13 | 5717.23 | 0.0236366 | 0.0234957 | 0.0799915 | 0.7313164 | 0.726957 | 2.4378128 | 2.4378128 |
| 327 | 17:39.6 | 574413 | 6.35303E+12 | 5.25253E+13 | 5714.11 | 0.0236366 | 0.0236695 | 0.0812022 | 0.7313164 | 0.7331697 | 2.4747113 | 2.4747113 |
| 328 | 22:42.4 | 574413 | 6.35303E+12 | 5.25253E+13 | 5730.11 | 0.0236366 | 0.0232574 | 0.0814296 | 0.7313164 | 0.691738 | 2.4816407 | 2.4816407 |
| 329 | 27:45.2 | 574413 | 6.35303E+12 | 5.25253E+13 | 5715.55 | 0.0236366 | 0.0257048 | 0.0812227 | 0.7313164 | 0.7953065 | 2.475335 | 2.475335 |
| 330 | 32:48.0 | 574414 | 6.35303E+12 | 5.19701E+13 | 5734.99 | 0.0236366 | 0.0255059 | 0.0823697 | 0.7313164 | 0.7892639 | 2.5102894 | 2.5102894 |
| 331 | 37:50.7 | 574414 | 6.35303E+12 | 5.19701E+13 | 5743.05 | 0.0236366 | 0.0257825 | 0.0824854 | 0.7313164 | 0.7977106 | 2.5138174 | 2.5138174 |
| 332 | 47:55.8 | 574419 | 6.35303E+12 | 5.263E+13 | 5733.81 | 0.0236366 | 0.0226332 | 0.0813201 | 0.7313164 | 0.7002712 | 2.4783037 | 2.4783037 |
| 333 | 52:58.6 | 574420 | 6.35303E+12 | 5.25895E+13 | 5702.24 | 0.0236366 | 0.0365861 | 0.0809348 | 0.7313164 | 1.1319739 | 2.4665598 | 2.4665598 |
| 334 | 03:05.1 | 574422 | 6.35303E+12 | 5.2543E+13 | 5687.09 | 0.0270381 | 0.0220677 | 0.080791 | 0.8365588 | 0.6827746 | 2.4621796 | 2.4621796 |
| 335 | 08:08.3 | 574424 | 6.35303E+12 | 5.28202E+13 | 5689.31 | 0.0270381 | 0.021979 | 0.0803985 | 0.8365588 | 0.6800303 | 2.4502159 | 2.4502159 |
| 336 | 13:11.1 | 574424 | 6.35303E+12 | 5.28202E+13 | 5696.24 | 0.0270381 | 0.0220696 | 0.0804964 | 0.8365588 | 0.6828334 | 2.4532005 | 2.4532005 |
| 337 | 18:13.9 | 574424 | 6.35303E+12 | 5.28202E+13 | 5678.52 | 0.0270381 | 0.0284763 | 0.080246 | 0.8365588 | 0.8810567 | 2.445569 | 2.445569 |
| 338 | 23:16.6 | 574426 | 6.35303E+12 | 5.30049E+13 | 5680.01 | 0.0270381 | 0.0489843 | 0.0799874 | 0.8365588 | 1.5155742 | 2.4376872 | 2.4376872 |
| 339 | 28:21.0 | 574427 | 6.35303E+12 | 5.28466E+13 | 5679.28 | 0.0270381 | 0.2387125 | 0.0802166 | 0.8365588 | 7.3857647 | 2.4446732 | 7.3857647 |
| 340 | 33:25.0 | 574427 | 6.35303E+12 | 5.28466E+13 | 5698.99 | 0.0270381 | 0.2311826 | 0.080495 | 0.8365588 | 7.1527896 | 2.4531574 | 7.1527896 |
| 341 | 38:27.9 | 574427 | 6.35303E+12 | 5.28466E+13 | 5702.85 | 0.0270381 | 0.0493653 | 0.0805495 | 0.8365588 | 1.5273624 | 2.454819 | 2.454819 |
| 342 | 43:31.1 | 574428 | 6.35303E+12 | 5.2354E+13 | 5722.4 | 0.0270381 | 0.0281258 | 0.0815862 | 0.8365588 | 0.8702123 | 2.4864117 | 2.4864117 |
| 343 | 48:33.8 | 574428 | 6.35303E+12 | 5.2354E+13 | 5716.73 | 0.0270381 | 0.0284039 | 0.0815053 | 0.8365588 | 0.8788167 | 2.483948 | 2.483948 |
| 344 | 53:36.7 | 574428 | 6.35303E+12 | 5.2354E+13 | 5711.78 | 0.0270381 | 0.02865 | 0.0814347 | 0.8365588 | 0.886431 | 2.4817972 | 2.4817972 |
| 345 | 58:39.3 | 574429 | 6.35303E+12 | 5.15634E+13 | 5700.85 | 0.0270381 | 0.0241868 | 0.0825252 | 0.8365588 | 0.7483396 | 2.5150298 | 2.5150298 |
| 346 | 03:42.5 | 574429 | 6.35303E+12 | 5.15634E+13 | 5699.99 | 0.0277604 | 0.0226736 | 0.0825128 | 0.8589068 | 0.7015212 | 2.5146504 | 2.5146504 |
| 347 | 08:45.2 | 574429 | 6.35303E+12 | 5.15634E+13 | 5715.88 | 0.0277604 | 0.0234588 | 0.0827428 | 0.8589068 | 0.7258153 | 2.5216605 | 2.5216605 |
| 348 | 13:48.0 | 574430 | 6.35303E+12 | 5.12815E+13 | 5716.7 | 0.0277604 | 0.0236299 | 0.0832095 | 0.8589068 | 0.7311091 | 2.5358831 | 2.5358831 |
| 349 | 18:51.3 | 574430 | 6.35303E+12 | 5.12815E+13 | 5707.94 | 0.0277604 | 0.0239638 | 0.0830819 | 0.8589068 | 0.74144 | 2.5319972 | 2.5319972 |
| 350 | 23:54.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5728.45 | 0.0277604 | 0.0239508 | 0.0833805 | 0.8589068 | 0.7410378 | 2.5410953 | 2.5410953 |
| 351 | 28:57.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5736.02 | 0.0277604 | 0.0240308 | 0.0834907 | 0.8589068 | 0.743513 | 2.5444533 | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 05:27.0 | 574448 | 6.35303E+12 | 5.19511E+13 | 5706.98 | 0.0294253 | 0.0253359 | 0.0819973 | 0.9104188 | 0.7838927 | 2.4989409 | 2.4989409 |
| 379 | 10:30.3 | 574449 | 6.35303E+12 | 5.17328E+13 | 5701.52 | 0.0294253 | 0.0259191 | 0.08222646 | 0.9104188 | 0.801937 | 2.5070865 | 2.5070865 |
| 380 | 15:33.5 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.36 | 0.0294253 | 0.0262614 | 0.0826329 | 0.9104188 | 0.8125277 | 2.5183117 | 2.5183117 |
| 381 | 20:36.3 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.9 | 0.0294253 | 0.0259411 | 0.0825685 | 0.9104188 | 0.8026176 | 2.5163482 | 2.5163482 |
| 382 | 25:39.3 | 574450 | 6.35303E+12 | 5.16724E+13 | 5710.01 | 0.0294253 | 0.02602 | 0.0824834 | 0.9104188 | 0.8050588 | 2.5137552 | 2.5137552 |
| 383 | 30:42.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.01 | 0.0294253 | 0.0257416 | 0.0826278 | 0.9104188 | 0.7964451 | 2.5181576 | 2.5181576 |
| 384 | 35:45.4 | 574450 | 6.35303E+12 | 5.16724E+13 | 5725.31 | 0.0294253 | 0.0263149 | 0.0827044 | 0.9104188 | 0.814183 | 2.5204908 | 2.5204908 |
| 385 | 40:48.2 | 574452 | 6.35303E+12 | 5.09821E+13 | 5714.39 | 0.0294253 | 0.0264506 | 0.0836643 | 0.9104188 | 0.8183816 | 2.5497457 | 2.5497457 |
| 386 | 45:51.1 | 574454 | 6.35303E+12 | 5.11925E+13 | 5720.01 | 0.0294253 | 0.0252602 | 0.0834024 | 0.9104188 | 0.7815506 | 2.5417623 | 2.5417623 |
| 387 | 50:54.1 | 574454 | 6.35303E+12 | 5.11925E+13 | 5704.48 | 0.0294253 | 0.0244985 | 0.0831759 | 0.9104188 | 0.7579836 | 2.5348614 | 2.5348614 |
| 388 | 55:57.1 | 574454 | 6.35303E+12 | 5.11925E+13 | 5713.35 | 0.0294253 | 0.0241693 | 0.0833053 | 0.9104188 | 0.7477981 | 2.5388029 | 2.5388029 |
| 389 | 00:59.9 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.69 | 0.0318592 | 0.0253433 | 0.0833248 | 0.9857236 | 0.7841217 | 2.5393983 | 2.5393983 |
| 390 | 06:03.5 | 574454 | 6.35303E+12 | 5.11925E+13 | 5710.33 | 0.0318592 | 0.0243257 | 0.0832612 | 0.9857236 | 0.7526372 | 2.5374609 | 2.5374609 |
| 391 | 11:07.4 | 574454 | 6.35303E+12 | 5.11925E+13 | 5705.52 | 0.0318592 | 0.0246413 | 0.0831911 | 0.9857236 | 0.7624018 | 2.5353235 | 2.5353235 |

Bearbox v Lancium
Trial Exhibit
TX920-6

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 22:20.9 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.02 | 0.0054942 | 0.0058423 | 0.0737658 | 0.1699905 | 0.1807608 | 2.2480786 | 2.2480786 |
| 3 | 27:24.1 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.0054942 | 0.0062269 | 0.0737656 | 0.1699905 | 0.1926603 | 2.2480744 | 2.2480744 |
| 4 | 32:27.2 | 574204 | 6.35303E+12 | 5.38327E+13 | 5321.94 | 0.0054942 | 0.0045157 | 0.0737924 | 0.1699905 | 0.1397158 | 2.24889 | 2.24889 |
| 5 | 37:30.3 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.95 | 0.0054942 | 0.0035338 | 0.0748335 | 0.1699905 | 0.1093358 | 2.2806172 | 2.2806172 |
| 6 | 42:33.3 | 574205 | 6.35303E+12 | 5.30839E+13 | 5326.19 | 0.0054942 | 0.002277 | 0.0748931 | 0.1699905 | 0.0704504 | 2.2824342 | 2.2824342 |
| 7 | 47:36.1 | 574206 | 6.35303E+12 | 5.44532E+13 | 5328.27 | 0.0054942 | 0.0051513 | 0.0730384 | 0.1699905 | 0.1593812 | 2.225912 | 2.225912 |
| 8 | 52:39.2 | 574206 | 6.35303E+12 | 5.44532E+13 | 5328.65 | 0.0054942 | 0.0072185 | 0.0730436 | 0.1699905 | 0.2233404 | 2.2260707 | 2.2260707 |
| 9 | 57:42.1 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.68 | 0.0054942 | 0.0010915 | 0.0736643 | 0.1699905 | 0.033771 | 2.2449863 | 2.2449863 |
| 10 | 02:45.4 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.22 | 0.0007072 | 0.0026959 | 0.073658 | 0.0218808 | 0.0834111 | 2.2447925 | 2.2447925 |
| 11 | 07:48.3 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0007072 | -0.0034108 | 0.0743412 | 0.0218808 | -0.1055302 | 2.2656139 | 2.2656139 |
| 12 | 12:51.5 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0007072 | -0.0088288 | 0.0743412 | 0.0218808 | -0.2731631 | 2.2656139 | 2.2656139 |
| 13 | 17:54.3 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0007072 | 0.0005301 | 0.0744503 | 0.0218808 | 0.0164013 | 2.2689395 | 2.2689395 |
| 14 | 22:57.3 | 574209 | 6.35303E+12 | 5.33477E+13 | 5327.95 | 0.0007072 | 0.0007828 | 0.0745474 | 0.0218808 | 0.0242198 | 2.2718988 | 2.2718988 |
| 15 | 28:01.3 | 574211 | 6.35303E+12 | 5.42133E+13 | 5325.19 | 0.0007072 | -0.0182739 | 0.0733191 | 0.0218808 | -0.5653945 | 2.2344662 | 2.2344662 |
| 16 | 33:04.8 | 574212 | 6.35303E+12 | 5.54528E+13 | 5323.43 | 0.0007072 | -0.0301375 | 0.0716566 | 0.0218808 | -0.9324543 | 2.1838 | 2.1838 |
| 17 | 38:07.8 | 574214 | 6.35303E+12 | 5.533E+13 | 5323.35 | 0.0007072 | -0.0305618 | 0.0718145 | 0.0218808 | -0.9455821 | 2.1886119 | 2.1886119 |
| 18 | 43:10.7 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0007072 | -0.0284827 | 0.0711001 | 0.0218808 | -0.8812547 | 2.1668382 | 2.1668382 |
| 19 | 48:13.5 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.55 | 0.0007072 | -0.0254835 | 0.0711461 | 0.0218808 | -0.7885152 | 2.1682425 | 2.1682425 |
| 20 | 53:16.6 | 574215 | 6.35303E+12 | 5.58834E+13 | 5328.3 | 0.0007072 | -0.0291736 | 0.0711695 | 0.0218808 | -0.9026312 | 2.1689549 | 2.1689549 |
| 21 | 58:19.3 | 574216 | 6.35303E+12 | 5.54406E+13 | 5326.69 | 0.0007072 | -0.0300521 | 0.0717163 | 0.0218808 | -0.929812 | 2.1856184 | 2.1856184 |
| 22 | 03:22.6 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.35 | 0.0001184 | -0.0293821 | 0.0717656 | 0.0036633 | -0.9090822 | 2.1871201 | 2.1871201 |
| 23 | 08:25.6 | 574218 | 6.35303E+12 | 5.58377E+13 | 5330.78 | 0.0001184 | -0.0030017 | 0.071261 | 0.0036633 | -0.0928726 | 2.1717421 | 2.1717421 |
| 24 | 13:28.5 | 574220 | 6.35303E+12 | 5.59914E+13 | 5329.45 | 0.0001184 | -0.0183569 | 0.0710476 | 0.0036633 | -0.5679625 | 2.1652392 | 2.1652392 |
| 25 | 18:31.4 | 574220 | 6.35303E+12 | 5.59914E+13 | 5348.41 | 0.0001184 | -0.0168349 | 0.0713003 | 0.0036633 | -0.5208718 | 2.1729422 | 2.1729422 |
| 26 | 23:34.2 | 574223 | 6.35303E+12 | 5.60912E+13 | 5338.35 | 0.0001184 | -0.0262408 | 0.0710397 | 0.0036633 | -0.8118904 | 2.164998 | 2.164998 |
| 27 | 28:37.1 | 574226 | 6.35303E+12 | 5.60441E+13 | 5328.39 | 0.0001184 | -0.0286978 | 0.0709666 | 0.0036633 | -0.8879099 | 2.1627725 | 2.1627725 |
| 28 | 33:39.9 | 574226 | 6.35303E+12 | 5.60441E+13 | 5333.1 | 0.0001184 | -0.0249271 | 0.0710294 | 0.0036633 | -0.7712445 | 2.1646843 | 2.1646843 |
| 29 | 38:43.2 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | 0.0001184 | -0.0184162 | 0.0714897 | 0.0036633 | -0.5698158 | 2.1787132 | 2.1787132 |
| 30 | 43:45.9 | 574227 | 6.35303E+12 | 5.56725E+13 | 5339.02 | 0.0001184 | -0.0190364 | 0.0715829 | 0.0036633 | -0.5889862 | 2.181553 | 2.181553 |
| 31 | 48:49.2 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.15 | 0.0001184 | -0.0188272 | 0.0721925 | 0.0036633 | -0.5825136 | 2.2001303 | 2.2001303 |
| 32 | 53:52.1 | 574229 | 6.35303E+12 | 5.5892E+13 | 5338.61 | 0.0001184 | -0.0278877 | 0.0712963 | 0.0036633 | -0.8628454 | 2.1728179 | 2.1728179 |
| 33 | 58:55.4 | 574229 | 6.35303E+12 | 5.5892E+13 | 5336.51 | 0.0001184 | -0.0228802 | 0.0712682 | 0.0036633 | -0.7079134 | 2.1719632 | 2.1719632 |
| 34 | 03:58.2 | 574229 | 6.35303E+12 | 5.5892E+13 | 5340.15 | 4.90E-06 | -0.018324 | 0.0713168 | 0.0001516 | -0.5669446 | 2.1734447 | 2.1734447 |
| 35 | 09:01.3 | 574229 | 6.35303E+12 | 5.5892E+13 | 5341.69 | 4.90E-06 | -0.0302504 | 0.0713374 | 0.0001516 | -0.9359474 | 2.1740715 | 2.1740715 |
| 36 | 14:04.8 | 574230 | 6.35303E+12 | 5.53347E+13 | 5346.1 | 4.90E-06 | -0.0297233 | 0.0721153 | 0.0001516 | -0.9196389 | 2.1977795 | 2.1977795 |
| 37 | 19:07.8 | 574230 | 6.35303E+12 | 5.53347E+13 | 5347.19 | 4.90E-06 | -0.0295915 | 0.07213 | 0.0001516 | -0.915561 | 2.1982276 | 2.1982276 |
| 38 | 24:10.8 | 574231 | 6.35303E+12 | 5.49411E+13 | 5341.77 | 4.90E-06 | -0.0275611 | 0.0725732 | 0.0001516 | -0.8527404 | 2.2117345 | 2.2117345 |
| 39 | 29:13.7 | 574231 | 6.35303E+12 | 5.49411E+13 | 5342.48 | 4.90E-06 | -0.0276163 | 0.0725829 | 0.0001516 | -0.8544483 | 2.2120284 | 2.2120284 |
| 40 | 34:16.7 | 574232 | 6.35303E+12 | 5.47061E+13 | 5349.99 | 4.90E-06 | -0.0261726 | 0.0729971 | 0.0001516 | -0.8097802 | 2.2246529 | 2.2246529 |
| 41 | 39:19.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5346.06 | 4.90E-06 | -0.0268168 | 0.0729435 | 0.0001516 | -0.8297118 | 2.2230187 | 2.2230187 |
| 42 | 44:22.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5350.69 | 4.90E-06 | -0.027105 | 0.0730067 | 0.0001516 | -0.8386287 | 2.224944 | 2.224944 |
| 43 | 49:25.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5361.36 | 4.90E-06 | -0.0282807 | 0.0731523 | 0.0001516 | -0.8727772 | 2.2293808 | 2.2293808 |
| 44 | 54:28.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.36 | 4.90E-06 | -0.0275544 | 0.0731113 | 0.0001516 | -0.8525331 | 2.2281334 | 2.2281334 |
| 45 | 59:31.3 | 574232 | 6.35303E+12 | 5.47061E+13 | 5369.47 | 4.90E-06 | -0.025414 | 0.0732629 | 0.0001516 | -0.7863092 | 2.2327532 | 2.2327532 |
| 46 | 04:34.2 | 574233 | 6.35303E+12 | 5.35475E+13 | 5382.49 | 0.0022439 | -0.0254873 | 0.0750295 | 0.0694263 | -0.7885771 | 2.2865921 | 2.2865921 |
| 47 | 09:37.0 | 574233 | 6.35303E+12 | 5.35475E+13 | 5358.81 | 0.0022439 | -0.0031512 | 0.0746994 | 0.0694263 | -0.0974981 | 2.2765324 | 2.2765324 |
| 48 | 14:39.6 | 574233 | 6.35303E+12 | 5.35475E+13 | 5359.15 | 0.0022439 | -0.0011741 | 0.0747042 | 0.0694263 | -0.0363267 | 2.2766768 | 2.2766768 |
| 49 | 19:42.4 | 574233 | 6.35303E+12 | 5.35475E+13 | 5359.66 | 0.0022439 | -0.0180119 | 0.0747113 | 0.0694263 | -0.5600728 | 2.2768935 | 2.2768935 |
| 50 | 24:45.0 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.18 | 0.0022439 | -0.0021049 | 0.075233 | 0.0694263 | -0.0651256 | 2.2927926 | 2.2927926 |
| 51 | 29:47.7 | 574234 | 6.35303E+12 | 5.31615E+13 | 5351.99 | 0.0022439 | -0.0142703 | 0.0751461 | 0.0694263 | -0.4415231 | 2.2901439 | 2.2901439 |
| 52 | 34:50.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5344.84 | 0.0022439 | -0.003526 | 0.0750457 | 0.0694263 | -0.1090944 | 2.2870844 | 2.2870844 |
| 53 | 39:53.2 | 574236 | 6.35303E+12 | 5.29706E+13 | 5349.94 | 0.0022439 | -0.0156274 | 0.075388 | 0.0694263 | -0.4835118 | 2.2975179 | 2.2975179 |
| 54 | 44:56.5 | 574237 | 6.35303E+12 | 5.26741E+13 | 5348.56 | 0.0022439 | -0.0298903 | 0.0757929 | 0.0694263 | -0.9248059 | 2.3098563 | 2.3098563 |
| 55 | 49:59.5 | 574238 | 6.35303E+12 | 5.2719E+13 | 5357.05 | 0.0022439 | -0.0286539 | 0.0758485 | 0.0694263 | -0.8865517 | 2.3115503 | 2.3115503 |
| 56 | 55:02.4 | 574238 | 6.35303E+12 | 5.2719E+13 | 5351.76 | 0.0022439 | -0.00581 | 0.0757736 | 0.0694263 | -0.1797614 | 2.3092677 | 2.3092677 |
| 57 | 00:05.4 | 574239 | 6.35303E+12 | 5.28168E+13 | 5350.18 | 0.0110575 | -0.0017958 | 0.0756109 | 0.342119 | -0.0555621 | 2.3043114 | 2.3043114 |
| 58 | 05:08.0 | 574239 | 6.35303E+12 | 5.28168E+13 | 5347.41 | 0.0110575 | -0.0296719 | 0.0755718 | 0.342119 | -0.9180486 | 2.3031184 | 2.3031184 |
| 59 | 10:10.8 | 574240 | 6.35303E+12 | 5.25658E+13 | 5348.27 | 0.0110575 | -0.0286808 | 0.0759448 | 0.342119 | -0.8867652 | 2.314487 | 2.314487 |
| 60 | 15:13.5 | 574243 | 6.35303E+12 | 5.35108E+13 | 5354.34 | 0.0110575 | -0.000324 | 0.0746884 | 0.342119 | -0.0100246 | 2.2761958 | 2.2761958 |
| 61 | 20:16.2 | 574245 | 6.35303E+12 | 5.38531E+13 | 5358.41 | 0.0110575 | 0.0006207 | 0.07427 | 0.342119 | 0.0192045 | 2.2634449 | 2.2634449 |
| 62 | 25:18.9 | 574245 | 6.35303E+12 | 5.38531E+13 | 5356.02 | 0.0110575 | -0.0034312 | 0.0742369 | 0.342119 | -0.1061613 | 2.2624353 | 2.2624353 |
| 63 | 30:21.7 | 574246 | 6.35303E+12 | 5.41667E+13 | 5359.34 | 0.0110575 | -0.001958 | 0.0738528 | 0.342119 | -0.0605805 | 2.2507317 | 2.2507317 |
| 64 | 35:24.4 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.98 | 0.0110575 | 0.0041538 | 0.0738892 | 0.342119 | 0.1285186 | 2.2518404 | 2.2518404 |
| 65 | 40:27.4 | 574246 | 6.35303E+12 | 5.41667E+13 | 5366.53 | 0.0110575 | -0.0150598 | 0.0739519 | 0.342119 | -0.4659502 | 2.2537513 | 2.2537513 |
| 66 | 45:30.2 | 574248 | 6.35303E+12 | 5.41479E+13 | 5365.93 | 0.0110575 | -0.0019635 | 0.0739693 | 0.342119 | -0.0607507 | 2.2542821 | 2.2542821 |
| 67 | 50:33.1 | 574251 | 6.35303E+12 | 5.52479E+13 | 5359.19 | 0.0110575 | 0.0009998 | 0.0724055 | 0.342119 | 0.0309338 | 2.2066234 | 2.2066234 |
| 68 | 55:35.9 | 574251 | 6.35303E+12 | 5.52479E+13 | 5360.66 | 0.0110575 | 0.0009997 | 0.0724254 | 0.342119 | 0.0309307 | 2.2072286 | 2.2072286 |
| 69 | 00:38.6 | 574252 | 6.35303E+12 | 5.50584E+13 | 5358.27 | 0.0155437 | 0.004066 | 0.0726423 | 0.4809221 | 0.125802 | 2.2138386 | 2.2138386 |
| 70 | 05:43.2 | 574252 | 6.35303E+12 | 5.50584E+13 | 5360.85 | 0.0155437 | 0.1479624 | 0.0726772 | 0.4809221 | 4.5779567 | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 96 | 17:07.9 | 574270 | 6.35303E+12 | 5.6144E+13 | 5353.05 | 0.0175072 | 0.0070444 | 0.0711682 | 0.5416728 | 0.2179537 | 2.1689142 | 2.1689142 |
| 97 | 22:10.7 | 574271 | 6.35303E+12 | 5.6095E+13 | 5352.41 | 0.0175072 | 0.0068769 | 0.0712219 | 0.5416728 | 0.2127713 | 2.1705513 | 2.1705513 |
| 98 | 27:13.7 | 574271 | 6.35303E+12 | 5.6095E+13 | 5350.73 | 0.0175072 | 0.0068185 | 0.0711995 | 0.5416728 | 0.2109644 | 2.1698701 | 2.1698701 |
| 99 | 32:17.1 | 574271 | 6.35303E+12 | 5.6095E+13 | 5352.02 | 0.0175072 | 0.0070024 | 0.0712167 | 0.5416728 | 0.2166543 | 2.1703932 | 2.1703932 |
| 100 | 37:20.0 | 574273 | 6.35303E+12 | 5.53104E+13 | 5353.7 | 0.0175072 | 0.0074003 | 0.0722496 | 0.5416728 | 0.2289653 | 2.2018709 | 2.2018709 |
| 101 | 42:23.0 | 574273 | 6.35303E+12 | 5.53104E+13 | 5354.2 | 0.0175072 | 0.0093641 | 0.0722563 | 0.5416728 | 0.2897253 | 2.2020766 | 2.2020766 |
| 102 | 47:25.7 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.14 | 0.0175072 | 0.0106524 | 0.0722116 | 0.5416728 | 0.3295853 | 2.2007128 | 2.2007128 |
| 103 | 52:29.0 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.15 | 0.0175072 | 0.0155577 | 0.0722252 | 0.5416728 | 0.4813552 | 2.2011279 | 2.2011279 |
| 104 | 57:31.7 | 574274 | 6.35303E+12 | 5.53441E+13 | 5366.51 | 0.0175072 | 0.0134928 | 0.0723784 | 0.5416728 | 0.4174672 | 2.2057972 | 2.2057972 |
| 105 | 02:34.7 | 574274 | 6.35303E+12 | 5.53441E+13 | 5367.34 | 0.0201513 | 0.0088181 | 0.0723896 | 0.6234812 | 0.272832 | 2.2061384 | 2.2061384 |
| 106 | 07:37.6 | 574274 | 6.35303E+12 | 5.53441E+13 | 5369.11 | 0.0201513 | 0.0080448 | 0.0724135 | 0.6234812 | 0.2489061 | 2.2068659 | 2.2068659 |
| 107 | 12:40.5 | 574274 | 6.35303E+12 | 5.53441E+13 | 5361.12 | 0.0201513 | 0.0141938 | 0.0723057 | 0.6234812 | 0.4391562 | 2.2035818 | 2.2035818 |
| 108 | 17:43.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5366.11 | 0.0201513 | 0.0148287 | 0.072373 | 0.6234812 | 0.4588 | 2.2056328 | 2.2056328 |
| 109 | 22:45.8 | 574275 | 6.35303E+12 | 5.36343E+13 | 5369.98 | 0.0201513 | 0.0148955 | 0.0747339 | 0.6234812 | 0.4608668 | 2.2775843 | 2.2775843 |
| 110 | 27:48.5 | 574275 | 6.35303E+12 | 5.36343E+13 | 5368.01 | 0.0201513 | 0.0147788 | 0.0747065 | 0.6234812 | 0.4572561 | 2.2764487 | 2.2764487 |
| 111 | 32:51.2 | 574277 | 6.35303E+12 | 5.50501E+13 | 5373.94 | 0.0201513 | 0.0189124 | 0.0728657 | 0.6234812 | 0.5851497 | 2.2206488 | 2.2206488 |
| 112 | 37:54.0 | 574279 | 6.35303E+12 | 5.54528E+13 | 5377.71 | 0.0201513 | 0.0181814 | 0.0723873 | 0.6234812 | 0.5625325 | 2.2060669 | 2.2060669 |
| 113 | 42:56.7 | 574281 | 6.35303E+12 | 5.67946E+13 | 5384.52 | 0.0201513 | 0.016267 | 0.0707666 | 0.6234812 | 0.503301 | 2.1566766 | 2.1566766 |
| 114 | 47:59.4 | 574281 | 6.35303E+12 | 5.67946E+13 | 5380.73 | 0.0201513 | 0.0160892 | 0.0707168 | 0.6234812 | 0.4977998 | 2.1551586 | 2.1551586 |
| 115 | 53:02.7 | 574282 | 6.35303E+12 | 5.6096E+13 | 5375.54 | 0.0201513 | 0.0124623 | 0.0715284 | 0.6234812 | 0.3855836 | 2.1798939 | 2.1798939 |
| 116 | 58:06.1 | 574282 | 6.35303E+12 | 5.6096E+13 | 5378.27 | 0.0201513 | 0.0169571 | 0.0715648 | 0.6234812 | 0.5246527 | 2.1810009 | 2.1810009 |
| 117 | 03:10.1 | 574283 | 6.35303E+12 | 5.56063E+13 | 5389.1 | 0.0221974 | 0.0169284 | 0.0723403 | 0.6867876 | 0.5237647 | 2.2046367 | 2.2046367 |
| 118 | 08:13.3 | 574283 | 6.35303E+12 | 5.56063E+13 | 5401.6 | 0.0221974 | 0.0188882 | 0.0725081 | 0.6867876 | 0.5844009 | 2.2097504 | 2.2097504 |
| 119 | 13:16.5 | 574283 | 6.35303E+12 | 5.56063E+13 | 5411.61 | 0.0221974 | 0.0187623 | 0.0726425 | 0.6867876 | 0.5805056 | 2.2138454 | 2.2138454 |
| 120 | 18:19.3 | 574284 | 6.35303E+12 | 5.64188E+13 | 5399.02 | 0.0221974 | 0.0199987 | 0.0714298 | 0.6867876 | 0.6187598 | 2.1768876 | 2.1768876 |
| 121 | 23:22.1 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.6 | 0.0221974 | 0.0195923 | 0.0714639 | 0.6867876 | 0.6061858 | 2.1779279 | 2.1779279 |
| 122 | 28:25.0 | 574284 | 6.35303E+12 | 5.64188E+13 | 5405.99 | 0.0221974 | 0.0190804 | 0.0715222 | 0.6867876 | 0.5903476 | 2.1796979 | 2.1796979 |
| 123 | 33:27.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5406.94 | 0.0221974 | 0.0194306 | 0.0723493 | 0.6867876 | 0.6011828 | 2.2049105 | 2.2049105 |
| 124 | 38:30.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.12 | 0.0221974 | 0.0186435 | 0.0722714 | 0.6867876 | 0.5768299 | 2.2025372 | 2.2025372 |
| 125 | 43:34.1 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.01 | 0.0221974 | 0.0194016 | 0.0723101 | 0.6867876 | 0.6002855 | 2.2037157 | 2.2037157 |
| 126 | 48:36.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.26 | 0.0221974 | 0.0191729 | 0.0723135 | 0.6867876 | 0.5932095 | 2.2038176 | 2.2038176 |
| 127 | 53:39.9 | 574285 | 6.35303E+12 | 5.57835E+13 | 5400.01 | 0.0221974 | 0.0194297 | 0.0722566 | 0.6867876 | 0.6011549 | 2.2020845 | 2.2020845 |
| 128 | 03:46.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.7 | 0.0234026 | 0.0195553 | 0.0723327 | 0.7240764 | 0.605041 | 2.2044049 | 2.2044049 |
| 129 | 08:49.1 | 574286 | 6.35303E+12 | 5.36818E+13 | 5416.95 | 0.0234026 | 0.0197148 | 0.0753209 | 0.7240764 | 0.6099759 | 2.2954736 | 2.2954736 |
| 130 | 13:52.7 | 574287 | 6.35303E+12 | 5.50908E+13 | 5406.6 | 0.0234026 | 0.0197013 | 0.0732543 | 0.7240764 | 0.6095582 | 2.2324921 | 2.2324921 |
| 131 | 18:55.9 | 574287 | 6.35303E+12 | 5.50908E+13 | 5394.62 | 0.0234026 | 0.0196918 | 0.073092 | 0.7240764 | 0.6092643 | 2.2275453 | 2.2275453 |
| 132 | 23:59.1 | 574288 | 6.35303E+12 | 5.6446E+13 | 5372.85 | 0.0234026 | 0.0197114 | 0.0710493 | 0.7240764 | 0.6098707 | 2.1652907 | 2.1652907 |
| 133 | 29:02.3 | 574288 | 6.35303E+12 | 5.6446E+13 | 5385.99 | 0.0234026 | 0.0197446 | 0.071223 | 0.7240764 | 0.6108979 | 2.1705862 | 2.1705862 |
| 134 | 34:05.2 | 574289 | 6.35303E+12 | 5.61643E+13 | 5382.26 | 0.0234026 | 0.0207871 | 0.0715308 | 0.7240764 | 0.6431529 | 2.1799641 | 2.1799641 |
| 135 | 39:08.3 | 574289 | 6.35303E+12 | 5.61643E+13 | 5380.01 | 0.0234026 | 0.0209181 | 0.0715009 | 0.7240764 | 0.647206 | 2.1790528 | 2.1790528 |
| 136 | 44:11.8 | 574289 | 6.35303E+12 | 5.61643E+13 | 5375.01 | 0.0234026 | 0.0204072 | 0.0714344 | 0.7240764 | 0.6313988 | 2.1770277 | 2.1770277 |
| 137 | 49:15.0 | 574290 | 6.35303E+12 | 5.56905E+13 | 5379.99 | 0.0234026 | 0.020967 | 0.0721089 | 0.7240764 | 0.648719 | 2.1975834 | 2.1975834 |
| 138 | 54:18.0 | 574292 | 6.35303E+12 | 5.59818E+13 | 5380.19 | 0.0234026 | 0.0210779 | 0.0717363 | 0.7240764 | 0.6521502 | 2.1862275 | 2.1862275 |
| 139 | 59:20.8 | 574293 | 6.35303E+12 | 5.63654E+13 | 5377.35 | 0.0234026 | 0.0210797 | 0.0712105 | 0.7240764 | 0.6522059 | 2.1702049 | 2.1702049 |
| 140 | 09:26.9 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.024677 | 0.0204808 | 0.0704165 | 0.7635064 | 0.6437005 | 2.1460054 | 2.1460054 |
| 141 | 14:29.9 | 574298 | 6.35303E+12 | 5.77593E+13 | 5389.19 | 0.024677 | 0.0209776 | 0.0696449 | 0.7635064 | 0.6490469 | 2.122492 | 2.122492 |
| 142 | 19:32.9 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.39 | 0.024677 | 0.0233134 | 0.0696346 | 0.7635064 | 0.7213166 | 2.122177 | 2.122177 |
| 143 | 24:36.5 | 574298 | 6.35303E+12 | 5.77593E+13 | 5391.23 | 0.024677 | 0.0216334 | 0.0696713 | 0.7635064 | 0.6693374 | 2.1232955 | 2.1232955 |
| 144 | 29:39.5 | 574298 | 6.35303E+12 | 5.77593E+13 | 5399.68 | 0.024677 | 0.0249963 | 0.0697805 | 0.7635064 | 0.7733855 | 2.1266234 | 2.1266234 |
| 145 | 34:42.6 | 574300 | 6.35303E+12 | 5.74492E+13 | 5391.27 | 0.024677 | 0.02573 | 0.0700479 | 0.7635064 | 0.7960862 | 2.1347724 | 2.1347724 |
| 146 | 39:48.1 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.51 | 0.024677 | 0.0821753 | 0.0698519 | 0.7635064 | 2.5425038 | 2.1287995 | 2.5425038 |
| 147 | 44:52.1 | 574302 | 6.35303E+12 | 5.77583E+13 | 5394.15 | 0.024677 | 0.2145119 | 0.0697103 | 0.7635064 | 6.6369982 | 2.124483 | 6.6369982 |
| 148 | 49:55.9 | 574302 | 6.35303E+12 | 5.77583E+13 | 5395.41 | 0.024677 | 0.2152312 | 0.0697265 | 0.7635064 | 4.7126632 | 2.1249792 | 4.7126632 |
| 149 | 54:59.6 | 574304 | 6.35303E+12 | 5.7411E+13 | 5395.02 | 0.024677 | 0.1730318 | 0.0701433 | 0.7635064 | 5.3536039 | 2.1376815 | 5.3536039 |
| 150 | 00:04.8 | 574305 | 6.35303E+12 | 5.8471E+13 | 5392.07 | 0.0272334 | 0.1708133 | 0.068834 | 0.8426014 | 5.2849635 | 2.0977787 | 5.2849635 |
| 151 | 05:08.7 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.61 | 0.0272334 | 0.2130182 | 0.0688537 | 0.8426014 | 6.5907831 | 2.0983778 | 6.5907831 |
| 152 | 10:11.7 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.59 | 0.0272334 | 0.03673 | 0.0688534 | 0.8426014 | 1.1364262 | 2.09837 | 2.09837 |
| 153 | 20:17.3 | 574309 | 6.35303E+12 | 6.00748E+13 | 5397.01 | 0.0272334 | 0.0252878 | 0.0670578 | 0.8426014 | 0.7824045 | 2.0436461 | 2.0436461 |
| 154 | 25:20.4 | 574309 | 6.35303E+12 | 6.00748E+13 | 5396.19 | 0.0272334 | 0.02513 | 0.0670476 | 0.8426014 | 0.7775222 | 2.0433356 | 2.0433356 |
| 155 | 30:23.2 | 574310 | 6.35303E+12 | 6.02983E+13 | 5397.48 | 0.0272334 | 0.029264 | 0.0668151 | 0.8426014 | 0.9054282 | 2.0362495 | 2.0362495 |
| 156 | 35:25.9 | 574311 | 6.35303E+12 | 6.01255E+13 | 5402.84 | 0.0272334 | 0.0292724 | 0.0670736 | 0.8426014 | 0.9056881 | 2.044127 | 2.044127 |
| 157 | 40:29.3 | 574312 | 6.35303E+12 | 5.99055E+13 | 5397.41 | 0.0272334 | 0.0293249 | 0.0672522 | 0.8426014 | 0.9073124 | 2.0495721 | 2.0495721 |
| 158 | 45:32.2 | 574312 | 6.35303E+12 | 5.99055E+13 | 5395.01 | 0.0272334 | 0.0252257 | 0.0672223 | 0.8426014 | 0.7804832 | 2.0486608 | 2.0486608 |
| 159 | 50:35.3 | 574314 | 6.35303E+12 | 5.98595E+13 | 5392.41 | 0.0272334 | 0.02791 | 0.0672416 | 0.8426014 | 0.8635354 | 2.0492469 | 2.0492469 |
| 160 | 55:38.1 | 574315 | 6.35303E+12 | 5.97623E+13 | 5391.82 | 0.0272334 | 0.025482 | 0.0673436 | 0.8426014 | 0.7884131 | 2.0523565 | 2.0523565 |
| 161 | 00:42.4 | 574315 | 6.35303E+12 | 5.97623E+13 | 5387.9 | 0.0290471 | 0.2072917 | 0.0672946 | 0.8987173 | 6.4136052 | 2.0508644 | 6.4136052 |
| 162 | 05:45.3 | 574317 | 6.35303E+12 | 6.04051E+13 | 5388.49 | 0.0290471 | 0.206619 | 0.0665859 | 0.8987173 | 0.8249192 | 2.0292641 | 2.0292641 |
| 163 | 10:49.2 | 574319 | 6.35303E+12 | 6.0775E+13 | 5387.98 | 0.0290471 | 0.2202776 | 0.0661742 | 0.8987173 | 6.8153889 | 2.0167195 | 6.8153889 |
| 164 | 20:54.5 | 574320 | 6.35303E+12 | 6.21737E+1 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 32:11.0 | 574329 | 6.35303E+12 | 5.94855E+13 | 5414.16 | 0.029578 | 0.0265315 | 0.0679373 | 0.9151433 | 0.8208846 | 2.0704516 | 2.0704516 |
| 191 | 37:14.1 | 574330 | 6.35303E+12 | 5.97035E+13 | 5414.16 | 0.029578 | 0.0264993 | 0.0676893 | 0.9151433 | 0.8198883 | 2.0628912 | 2.0628912 |
| 192 | 52:22.4 | 574333 | 6.35303E+12 | 5.9734E+13 | 5406.27 | 0.029578 | 0.0263688 | 0.0675561 | 0.9151433 | 0.8158507 | 2.0588333 | 2.0588333 |
| 193 | 02:28.0 | 574334 | 6.35303E+12 | 5.92562E+13 | 5400.02 | 0.028458 | 0.0275794 | 0.0680221 | 0.8804905 | 0.8533066 | 2.0730351 | 2.0730351 |
| 194 | 07:31.0 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.05 | 0.028458 | 0.0264065 | 0.068297 | 0.8804905 | 0.8170171 | 2.0814126 | 2.0814126 |
| 195 | 12:34.3 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.81 | 0.028458 | 0.0264328 | 0.0667358 | 0.8804905 | 0.8178308 | 2.0338321 | 2.0338321 |
| 196 | 17:37.3 | 574338 | 6.35303E+12 | 6.00814E+13 | 5403.9 | 0.028458 | 0.0262088 | 0.067136 | 0.8804905 | 0.8109003 | 2.0460298 | 2.0460298 |
| 197 | 22:40.4 | 574340 | 6.35303E+12 | 6.01388E+13 | 5404.53 | 0.028458 | 0.0258082 | 0.0670798 | 0.8804905 | 0.7985057 | 2.0443159 | 2.0443159 |
| 198 | 27:43.7 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.01 | 0.028458 | 0.0262698 | 0.066705 | 0.8804905 | 0.8127876 | 2.0328944 | 2.0328944 |
| 199 | 32:46.8 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.02 | 0.028458 | 0.0252935 | 0.0667051 | 0.8804905 | 0.7825809 | 2.0328982 | 2.0328982 |
| 200 | 37:49.9 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.97 | 0.028458 | 0.02589 | 0.067246 | 0.8804905 | 0.8010366 | 2.0493813 | 2.0493813 |
| 201 | 42:52.7 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.028458 | 0.0257766 | 0.0676328 | 0.8804905 | 0.797528 | 2.0611697 | 2.0611697 |
| 202 | 47:55.6 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.028458 | 0.0264346 | 0.0676328 | 0.8804905 | 0.8178865 | 2.0611697 | 2.0611697 |
| 203 | 58:00.7 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.35 | 0.028458 | 0.0259627 | 0.0676245 | 0.8804905 | 0.8032859 | 2.0609177 | 2.0609177 |
| 204 | 03:05.1 | 574346 | 6.35303E+12 | 5.84022E+13 | 5395.14 | 0.0276119 | 0.0231391 | 0.0689544 | 0.8543122 | 0.847613 | 2.1014468 | 2.1014468 |
| 205 | 08:08.7 | 574347 | 6.35303E+12 | 5.86008E+13 | 5392.22 | 0.0276119 | 0.0261815 | 0.0686835 | 0.8543122 | 0.8100556 | 2.0931918 | 2.0931918 |
| 206 | 23:17.2 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.18 | 0.0276119 | 0.0261474 | 0.0685802 | 0.8543122 | 0.8090006 | 2.0900429 | 2.0900429 |
| 207 | 28:21.2 | 574349 | 6.35303E+12 | 5.84595E+13 | 5396.23 | 0.0276119 | 0.0220695 | 0.0689007 | 0.8543122 | 0.8283033 | 2.0998095 | 2.0998095 |
| 208 | 33:24.2 | 574349 | 6.35303E+12 | 5.84595E+13 | 5395.06 | 0.0276119 | 0.0357404 | 0.0688857 | 0.8543122 | 1.105808 | 2.0993542 | 2.0993542 |
| 209 | 38:27.1 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.03 | 0.0276119 | 0.0265231 | 0.0681081 | 0.8543122 | 0.8206247 | 2.0756546 | 2.0756546 |
| 210 | 43:30.0 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.02 | 0.0276119 | 0.0279653 | 0.0679653 | 0.8543122 | 0.7522442 | 2.071303 | 2.071303 |
| 211 | 48:32.9 | 574351 | 6.35303E+12 | 5.92508E+13 | 5394.15 | 0.0276119 | 0.0250697 | 0.0679543 | 0.8543122 | 0.7756565 | 2.070969 | 2.070969 |
| 212 | 53:35.7 | 574351 | 6.35303E+12 | 5.92508E+13 | 5390.52 | 0.0276119 | 0.0242897 | 0.0679086 | 0.8543122 | 0.7515233 | 2.0695753 | 2.0695753 |
| 213 | 58:38.6 | 574351 | 6.35303E+12 | 5.92508E+13 | 5391.4 | 0.0276119 | 0.0244875 | 0.0679197 | 0.8543122 | 0.7576432 | 2.0699132 | 2.0699132 |
| 214 | 03:41.5 | 574351 | 6.35303E+12 | 5.92508E+13 | 5383.02 | 0.0288024 | 0.0245448 | 0.0678141 | 0.8911463 | 0.7594161 | 2.0666958 | 2.0666958 |
| 215 | 08:44.3 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.99 | 0.0288024 | 0.0220851 | 0.0676752 | 0.8911463 | 0.683313 | 2.0624611 | 2.0624611 |
| 216 | 13:47.2 | 574351 | 6.35303E+12 | 5.92508E+13 | 5376.84 | 0.0288024 | 0.0221515 | 0.0677362 | 0.8911463 | 0.6853674 | 2.0643232 | 2.0643232 |
| 217 | 18:50.0 | 574353 | 6.35303E+12 | 5.95341E+13 | 5372.72 | 0.0288024 | 0.0237019 | 0.0673622 | 0.8911463 | 0.7333368 | 2.0529247 | 2.0529247 |
| 218 | 23:53.2 | 574353 | 6.35303E+12 | 5.95341E+13 | 5379.06 | 0.0288024 | 0.0224086 | 0.0674417 | 0.8911463 | 0.6933221 | 2.0553472 | 2.0553472 |
| 219 | 28:56.2 | 574353 | 6.35303E+12 | 5.95341E+13 | 5386.27 | 0.0288024 | 0.0242596 | 0.0675321 | 0.8911463 | 0.750592 | 2.0581021 | 2.0581021 |
| 220 | 33:59.0 | 574353 | 6.35303E+12 | 5.95341E+13 | 5393.51 | 0.0288024 | 0.027236 | 0.0676229 | 0.8911463 | 0.7627236 | 2.0608686 | 2.0608686 |
| 221 | 39:01.9 | 574353 | 6.35303E+12 | 5.95341E+13 | 5397.98 | 0.0288024 | 0.024574 | 0.0676789 | 0.8911463 | 0.7603196 | 2.0625766 | 2.0625766 |
| 222 | 44:04.8 | 574354 | 6.35303E+12 | 5.92005E+13 | 5401.73 | 0.0288024 | 0.024264 | 0.0681077 | 0.8911463 | 0.7507282 | 2.0756429 | 2.0756429 |
| 223 | 49:08.5 | 574356 | 6.35303E+12 | 6.01278E+13 | 5395.44 | 0.0288024 | 0.0227333 | 0.0669792 | 0.8911463 | 0.7033683 | 2.0412523 | 2.0412523 |
| 224 | 54:11.6 | 574356 | 6.35303E+12 | 6.01278E+13 | 5400.19 | 0.0288024 | 0.0241575 | 0.0670382 | 0.8911463 | 0.7474331 | 2.0430494 | 2.0430494 |
| 225 | 59:14.8 | 574357 | 6.35303E+12 | 5.98782E+13 | 5407.34 | 0.0288024 | 0.0213869 | 0.0674068 | 0.8911463 | 0.6617107 | 2.054282 | 2.054282 |
| 226 | 04:17.8 | 574357 | 6.35303E+12 | 5.98782E+13 | 5412.65 | 0.0349955 | 0.0212221 | 0.0687473 | 1.0827608 | 0.6566118 | 2.0562993 | 2.0562993 |
| 227 | 09:21.0 | 574358 | 6.35303E+12 | 5.94067E+13 | 5412.99 | 0.0349955 | 0.0210166 | 0.0680127 | 1.0827608 | 0.6502536 | 2.0727494 | 2.0727494 |
| 228 | 14:24.8 | 574359 | 6.35303E+12 | 5.99023E+13 | 5410.59 | 0.0349955 | 0.0212588 | 0.0674202 | 1.0827608 | 0.6577473 | 2.0546898 | 2.0546898 |
| 229 | 24:31.9 | 574360 | 6.35303E+12 | 6.0023E+13 | 5404.27 | 0.0349955 | 0.0221652 | 0.0672059 | 1.0827608 | 0.6857913 | 2.0481598 | 2.0481598 |
| 230 | 29:35.1 | 574361 | 6.35303E+12 | 5.95038E+13 | 5406.99 | 0.0349955 | 0.0219022 | 0.0678264 | 1.0827608 | 0.6776541 | 2.0670711 | 2.0670711 |
| 231 | 34:38.4 | 574361 | 6.35303E+12 | 5.95038E+13 | 5410.01 | 0.0349955 | 0.0238654 | 0.0678643 | 1.0827608 | 0.7383955 | 2.0682256 | 2.0682256 |
| 232 | 39:41.8 | 574361 | 6.35303E+12 | 5.95038E+13 | 5424.76 | 0.0349955 | 0.0349014 | 0.0680493 | 1.0827608 | 1.0798493 | 2.0738645 | 2.0738645 |
| 233 | 44:45.3 | 574362 | 6.35303E+12 | 5.87448E+13 | 5432.99 | 0.0349955 | 0.0231509 | 0.0690331 | 1.0827608 | 0.7162888 | 2.1038472 | 2.1038472 |
| 234 | 49:48.4 | 574362 | 6.35303E+12 | 5.87448E+13 | 5431.52 | 0.0349955 | 0.0217775 | 0.0690145 | 1.0827608 | 0.6737959 | 2.103278 | 2.103278 |
| 235 | 54:51.6 | 574363 | 6.35303E+12 | 5.80502E+13 | 5426.35 | 0.0349955 | 0.0233238 | 0.0697738 | 1.0827608 | 0.7216384 | 2.1264208 | 2.1264208 |
| 236 | 59:54.6 | 574363 | 6.35303E+12 | 5.80502E+13 | 5426.04 | 0.0349955 | 0.0316189 | 0.0697699 | 1.0827608 | 0.9782888 | 2.1262994 | 2.1262994 |
| 237 | 10:00.2 | 574364 | 6.35303E+12 | 5.78645E+13 | 5442.45 | 0.026266 | 0.0418451 | 0.0702054 | 0.81267 | 1.2946874 | 2.1395736 | 2.1395736 |
| 238 | 20:06.7 | 574367 | 6.35303E+12 | 5.84533E+13 | 5443.24 | 0.026266 | 0.0238876 | 0.0695083 | 0.81267 | 0.7390823 | 2.1183292 | 2.1183292 |
| 239 | 25:10.0 | 574368 | 6.35303E+12 | 5.81378E+13 | 5430.99 | 0.026266 | 0.0224401 | 0.0697283 | 0.81267 | 0.6942967 | 2.125032 | 2.125032 |
| 240 | 30:13.1 | 574368 | 6.35303E+12 | 5.81378E+13 | 5447.49 | 0.026266 | 0.0208024 | 0.0699401 | 0.81267 | 0.6436263 | 2.1314881 | 2.1314881 |
| 241 | 35:16.2 | 574369 | 6.35303E+12 | 5.7527E+13 | 5441.28 | 0.026266 | 0.0204883 | 0.0706021 | 0.81267 | 0.633908 | 2.151664 | 2.151664 |
| 242 | 40:20.4 | 574369 | 6.35303E+12 | 5.7527E+13 | 5444.99 | 0.026266 | 0.0193386 | 0.0706503 | 0.81267 | 0.5983363 | 2.151331 | 2.151331 |
| 243 | 45:23.4 | 574370 | 6.35303E+12 | 5.73316E+13 | 5445.99 | 0.026266 | 0.0193386 | 0.0709041 | 0.81267 | 0.5983363 | 2.1608665 | 2.1608665 |
| 244 | 50:26.5 | 574370 | 6.35303E+12 | 5.73316E+13 | 5466.65 | 0.026266 | 0.0188979 | 0.0711731 | 0.81267 | 0.584701 | 2.169064 | 2.169064 |
| 245 | 55:29.5 | 574372 | 6.35303E+12 | 5.7029E+13 | 5473.18 | 0.026266 | 0.0188979 | 0.0716362 | 0.81267 | 0.584701 | 2.1831762 | 2.1831762 |
| 246 | 00:32.4 | 574373 | 6.35303E+12 | 5.75391E+13 | 5470.2 | 0.0201854 | 0.0187891 | 0.0709624 | 0.6245363 | 0.5813348 | 2.1626439 | 2.1626439 |
| 247 | 05:35.4 | 574373 | 6.35303E+12 | 5.75391E+13 | 5471.01 | 0.0201854 | 0.0185387 | 0.0709729 | 0.6245363 | 0.5735874 | 2.1629641 | 2.1629641 |
| 248 | 15:40.8 | 574374 | 6.35303E+12 | 5.70787E+13 | 5460.95 | 0.0201854 | 0.0185472 | 0.0714138 | 0.6245363 | 0.5738504 | 2.1764008 | 2.1764008 |
| 249 | 25:46.4 | 574376 | 6.35303E+12 | 5.68162E+13 | 5458.6 | 0.0201854 | 0.0186796 | 0.0717129 | 0.6245363 | 0.5779468 | 2.1855137 | 2.1855137 |
| 250 | 35:51.9 | 574377 | 6.35303E+12 | 5.63276E+13 | 5460.02 | 0.0201854 | 0.0210142 | 0.0723538 | 0.6245363 | 0.6501793 | 2.2050485 | 2.2050485 |
| 251 | 40:54.8 | 574377 | 6.35303E+12 | 5.63276E+13 | 5466.78 | 0.0201854 | 0.0203564 | 0.0724434 | 0.6245363 | 0.629827 | 2.2077785 | 2.2077785 |
| 252 | 45:57.7 | 574378 | 6.35303E+12 | 5.65074E+13 | 5473.24 | 0.0201854 | 0.0203336 | 0.0722982 | 0.6245363 | 0.6291216 | 2.2033529 | 2.2033529 |
| 253 | 51:01.0 | 574378 | 6.35303E+12 | 5.65074E+13 | 5471.65 | 0.0201854 | 0.0199115 | 0.0722772 | 0.6245363 | 0.6160618 | 2.2027129 | 2.2027129 |
| 254 | 56:04.1 | 574378 | 6.35303E+12 | 5.65074E+13 | 5469.64 | 0.0201854 | 0.0188807 | 0.0722507 | 0.6245363 | 0.5841689 | 2.2019037 | 2.2019037 |
| 255 | 01:36.7 | 574383 | 6.35303E+12 | 5.72964E+13 | 5478.36 | 0.017735 | 0.0180056 | 0.0713693 | 0.5487209 | 0.5570933 | 2.1750424 | 2.1750424 |
| 256 | 06:39.8 | 574384 | 6.35303E+12 | 5.65611E+13 | 5470.62 | 0.017735 | 0.0179751 | 0.072195 | 0.5487209 | 0.5561496 | 2.2002079 | 2.2002079 |
| 257 | 11:42.7 | 574384 | 6.35303E+12 | 5.65611E+13 | 5479.43 | 0.017735 | 0.018023 | 0.0723113 | 0.5487209 | 0.5576316 | 2.2037511 | 2.2037511 |
| 258 | 16:45.6 | 574384 | 6.35303E+12 | 5.65611E+13 | 5474.09 | 0. | | | | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 284 | 33:06.2 | 574397 | 6.35303E+12 | 5.38389E+13 | 5549.85 | 0.0175068 | 0.0179475 | 0.0769437 | 0.5416604 | 0.5552957 | 2.3449279 | 2.3449279 |
| 285 | 38:09.0 | 574397 | 6.35303E+12 | 5.38389E+13 | 5562.7 | 0.0175068 | 0.0181763 | 0.0771218 | 0.5416604 | 0.5623747 | 2.3503573 | 2.3503573 |
| 286 | 43:11.9 | 574397 | 6.35303E+12 | 5.38389E+13 | 5576.66 | 0.0175068 | 0.0180946 | 0.0773154 | 0.5416604 | 0.5598469 | 2.3562557 | 2.3562557 |
| 287 | 48:15.5 | 574397 | 6.35303E+12 | 5.38389E+13 | 5591.65 | 0.0175068 | 0.0182001 | 0.0775232 | 0.5416604 | 0.5631111 | 2.3625893 | 2.3625893 |
| 288 | 53:18.6 | 574397 | 6.35303E+12 | 5.38389E+13 | 5576.07 | 0.0175068 | 0.0186904 | 0.0773072 | 0.5416604 | 0.572821 | 2.3560064 | 2.3560064 |
| 289 | 58:21.9 | 574398 | 6.35303E+12 | 5.24135E+13 | 5579.93 | 0.0175068 | 0.0187504 | 0.0794646 | 0.5416604 | 0.5801374 | 2.4217554 | 2.4217554 |
| 290 | 03:24.7 | 574399 | 6.35303E+12 | 5.22154E+13 | 5582.01 | 0.0177324 | 0.0190536 | 0.0797958 | 0.5486405 | 0.5895184 | 2.431849 | 2.431849 |
| 291 | 08:28.1 | 574399 | 6.35303E+12 | 5.22154E+13 | 5562.69 | 0.0177324 | 0.0191988 | 0.0795196 | 0.5486405 | 0.5940109 | 2.4234321 | 2.4234321 |
| 292 | 13:30.8 | 574400 | 6.35303E+12 | 5.19602E+13 | 5575.84 | 0.0177324 | 0.0190126 | 0.0800991 | 0.5486405 | 0.5882498 | 2.441092 | 2.441092 |
| 293 | 18:33.6 | 574400 | 6.35303E+12 | 5.19602E+13 | 5579.19 | 0.0177324 | 0.019119 | 0.0801472 | 0.5486405 | 0.5915419 | 2.4425586 | 2.4425586 |
| 294 | 23:36.6 | 574401 | 6.35303E+12 | 5.14241E+13 | 5571.19 | 0.0177324 | 0.01914 | 0.0808667 | 0.5486405 | 0.5921916 | 2.4644852 | 2.4644852 |
| 295 | 28:39.9 | 574401 | 6.35303E+12 | 5.14241E+13 | 5570.27 | 0.0177324 | 0.0192996 | 0.0808533 | 0.5486405 | 0.5971296 | 2.4640783 | 2.4640783 |
| 296 | 33:43.3 | 574402 | 6.35303E+12 | 5.15991E+13 | 5576.77 | 0.0177324 | 0.0192744 | 0.0806731 | 0.5486405 | 0.5963499 | 2.458585 | 2.458585 |
| 297 | 38:46.1 | 574403 | 6.35303E+12 | 5.16659E+13 | 5613.91 | 0.0177324 | 0.0199884 | 0.0811054 | 0.5486405 | 0.6184411 | 2.4717605 | 2.4717605 |
| 298 | 43:49.0 | 574404 | 6.35303E+12 | 5.22163E+13 | 5628.79 | 0.0177324 | 0.0195167 | 0.0804633 | 0.5486405 | 0.6038467 | 2.45219 | 2.45219 |
| 299 | 48:51.9 | 574405 | 6.35303E+12 | 5.26766E+13 | 5629.74 | 0.0177324 | 0.0214372 | 0.0797736 | 0.5486405 | 0.663267 | 2.4311707 | 2.4311707 |
| 300 | 53:54.6 | 574406 | 6.35303E+12 | 5.44332E+13 | 5687.49 | 0.0177324 | 0.0195852 | 0.077991 | 0.5486405 | 0.6059661 | 2.3768473 | 2.3768473 |
| 301 | 58:57.5 | 574407 | 6.35303E+12 | 5.44179E+13 | 5665.95 | 0.0177324 | 0.0195061 | 0.0777176 | 0.5486405 | 0.6035187 | 2.3685147 | 2.3685147 |
| 302 | 04:00.3 | 574407 | 6.35303E+12 | 5.44179E+13 | 5670.39 | 0.0185341 | 0.0184448 | 0.0777785 | 0.5734451 | 0.5706821 | 2.3703707 | 2.3703707 |
| 303 | 09:03.2 | 574408 | 6.35303E+12 | 5.43366E+13 | 5671.73 | 0.0185341 | 0.0190636 | 0.0779133 | 0.5734451 | 0.5898278 | 2.3744772 | 2.3744772 |
| 304 | 14:06.4 | 574409 | 6.35303E+12 | 5.45039E+13 | 5709.88 | 0.0185341 | 0.0193304 | 0.0781965 | 0.5734451 | 0.5980826 | 2.3831101 | 2.3831101 |
| 305 | 19:09.3 | 574409 | 6.35303E+12 | 5.45039E+13 | 5681.29 | 0.0185341 | 0.0195839 | 0.077805 | 0.5734451 | 0.6059259 | 2.3711776 | 2.3711776 |
| 306 | 24:12.6 | 574409 | 6.35303E+12 | 5.45039E+13 | 5681.4 | 0.0185341 | 0.021853 | 0.0778065 | 0.5734451 | 0.6761318 | 2.3712235 | 2.3712235 |
| 307 | 29:16.5 | 574410 | 6.35303E+12 | 5.4739E+13 | 5706.78 | 0.0185341 | 0.0200612 | 0.0778185 | 0.5734451 | 0.6206935 | 2.3715874 | 2.3715874 |
| 308 | 34:19.5 | 574410 | 6.35303E+12 | 5.4739E+13 | 5723.04 | 0.0185341 | 0.0209275 | 0.0780402 | 0.5734451 | 0.6474969 | 2.3783446 | 2.3783446 |
| 309 | 39:22.8 | 574410 | 6.35303E+12 | 5.4739E+13 | 5712.44 | 0.0185341 | 0.0210112 | 0.0778956 | 0.5734451 | 0.6500865 | 2.3739395 | 2.3739395 |
| 310 | 44:26.3 | 574410 | 6.35303E+12 | 5.4739E+13 | 5766.56 | 0.0185341 | 0.0207384 | 0.0786336 | 0.5734451 | 0.6416461 | 2.3963404 | 2.3963404 |
| 311 | 49:29.4 | 574410 | 6.35303E+12 | 5.4739E+13 | 5752.64 | 0.0185341 | 0.0222079 | 0.0784438 | 0.5734451 | 0.6871124 | 2.3906456 | 2.3906456 |
| 312 | 54:32.5 | 574411 | 6.35303E+12 | 5.33843E+13 | 5785.23 | 0.0185341 | 0.0227025 | 0.0808902 | 0.5734451 | 0.7024153 | 2.4652002 | 2.4652002 |
| 313 | 59:35.5 | 574412 | 6.35303E+12 | 5.33495E+13 | 5778.03 | 0.0185341 | 0.0248589 | 0.0808422 | 0.5734451 | 1.3260544 | 2.4637378 | 2.4637378 |
| 314 | 04:38.4 | 574412 | 6.35303E+12 | 5.33495E+13 | 5707.59 | 0.0231547 | 0.0241354 | 0.0798566 | 0.7164064 | 0.7467493 | 2.4337024 | 2.4337024 |
| 315 | 09:41.5 | 574412 | 6.35303E+12 | 5.33495E+13 | 5698.98 | 0.0231547 | 0.0216243 | 0.0797362 | 0.7164064 | 0.6690558 | 2.4300311 | 2.4300311 |
| 316 | 14:44.4 | 574412 | 6.35303E+12 | 5.33495E+13 | 5716.84 | 0.0231547 | 0.0224334 | 0.079986 | 0.7164064 | 0.6940894 | 2.4376465 | 2.4376465 |
| 317 | 19:47.4 | 574413 | 6.35303E+12 | 5.25253E+13 | 5727.04 | 0.0231547 | 0.0226368 | 0.081386 | 0.7164064 | 0.7003826 | 2.4803111 | 2.4803111 |
| 318 | 24:50.2 | 574413 | 6.35303E+12 | 5.25253E+13 | 5727.44 | 0.0231547 | 0.0213798 | 0.0813917 | 0.7164064 | 0.661491 | 2.4804844 | 2.4804844 |
| 319 | 29:53.5 | 574413 | 6.35303E+12 | 5.25253E+13 | 5735.97 | 0.0231547 | 0.0215261 | 0.0815129 | 0.7164064 | 0.7615726 | 2.4841786 | 2.4841786 |
| 320 | 34:56.2 | 574414 | 6.35303E+12 | 5.19701E+13 | 5739.52 | 0.0231547 | 0.0244526 | 0.0824347 | 0.7164064 | 0.7565634 | 2.5122723 | 2.5122723 |
| 321 | 39:58.9 | 574415 | 6.35303E+12 | 5.18073E+13 | 5733.01 | 0.0231547 | 0.0247503 | 0.0826 | 0.7164064 | 0.7657743 | 2.5173089 | 2.5173089 |
| 322 | 45:02.0 | 574418 | 6.35303E+12 | 5.19586E+13 | 5730.9 | 0.0231547 | 0.0246666 | 0.0823292 | 0.7164064 | 0.7631846 | 2.5090566 | 2.5090566 |
| 323 | 50:05.4 | 574420 | 6.35303E+12 | 5.25895E+13 | 5722.12 | 0.0231547 | 0.0217518 | 0.0812169 | 0.7164064 | 0.6730007 | 2.4751591 | 2.4751591 |
| 324 | 55:08.3 | 574421 | 6.35303E+12 | 5.25734E+13 | 5697.57 | 0.0231547 | 0.0231625 | 0.0808932 | 0.7164064 | 1.0879278 | 2.4652918 | 2.4652918 |
| 325 | 00:11.2 | 574421 | 6.35303E+12 | 5.25734E+13 | 5674.99 | 0.0262502 | 0.0227664 | 0.0805752 | 0.8121812 | 0.7043994 | 2.4555216 | 2.4555216 |
| 326 | 05:14.1 | 574423 | 6.35303E+12 | 5.29406E+13 | 5662.61 | 0.0262502 | 0.0211763 | 0.0798392 | 0.8121812 | 0.6551947 | 2.4331701 | 2.4331701 |
| 327 | 10:17.1 | 574424 | 6.35303E+12 | 5.28202E+13 | 5700.01 | 0.0262502 | 0.0212464 | 0.0805497 | 0.8121812 | 0.6573636 | 2.4548241 | 2.4548241 |
| 328 | 15:20.3 | 574424 | 6.35303E+12 | 5.28202E+13 | 5679.07 | 0.0262502 | 0.0274005 | 0.0802538 | 0.8121812 | 0.84792 | 2.4458059 | 2.4458059 |
| 329 | 20:23.5 | 574425 | 6.35303E+12 | 5.23532E+13 | 5686.98 | 0.0262502 | 0.0470867 | 0.0810825 | 0.8121812 | 1.4568625 | 2.471061 | 2.471061 |
| 330 | 25:27.5 | 574426 | 6.35303E+12 | 5.30049E+13 | 5674.69 | 0.0262502 | 0.2292147 | 0.0799125 | 0.8121812 | 0.7910928 | 2.435404 | 2.435404 |
| 331 | 30:31.9 | 574427 | 6.35303E+12 | 5.28466E+13 | 5692.52 | 0.0262502 | 0.2216174 | 0.0804036 | 0.8121812 | 0.68568424 | 2.4503724 | 2.4503724 |
| 332 | 35:34.7 | 574427 | 6.35303E+12 | 5.28466E+13 | 5694.01 | 0.0262502 | 0.0471417 | 0.0804247 | 0.8121812 | 1.4585642 | 2.4510138 | 2.4510138 |
| 333 | 40:37.2 | 574428 | 6.35303E+12 | 5.2354E+13 | 5713.35 | 0.0262502 | 0.026834 | 0.0814571 | 0.8121812 | 0.830244 | 2.4824794 | 2.4824794 |
| 334 | 45:39.9 | 574428 | 6.35303E+12 | 5.2354E+13 | 5716.19 | 0.0262502 | 0.0271429 | 0.0814976 | 0.8121812 | 0.8398013 | 2.4837134 | 2.4837134 |
| 335 | 50:43.0 | 574428 | 6.35303E+12 | 5.2354E+13 | 5717.38 | 0.0262502 | 0.0274218 | 0.0815146 | 0.8121812 | 0.8484305 | 2.4842305 | 2.4842305 |
| 336 | 55:46.3 | 574429 | 6.35303E+12 | 5.15634E+13 | 5710.01 | 0.0262502 | 0.0231901 | 0.0826578 | 0.8121812 | 0.7175017 | 2.5190709 | 2.5190709 |
| 337 | 00:48.9 | 574429 | 6.35303E+12 | 5.15634E+13 | 5698.38 | 0.026897 | 0.0217524 | 0.0824894 | 0.8321932 | 0.6730193 | 2.5139401 | 2.5139401 |
| 338 | 05:51.7 | 574429 | 6.35303E+12 | 5.15634E+13 | 5709.41 | 0.026897 | 0.0217524 | 0.0826491 | 0.8321932 | 0.6730193 | 2.5188062 | 2.5188062 |
| 339 | 10:54.7 | 574430 | 6.35303E+12 | 5.12815E+13 | 5715.13 | 0.026897 | 0.0226581 | 0.0831866 | 0.8321932 | 0.7010416 | 2.5351866 | 2.5351866 |
| 340 | 15:57.5 | 574430 | 6.35303E+12 | 5.12815E+13 | 5712.23 | 0.026897 | 0.0229356 | 0.0831444 | 0.8321932 | 0.7096275 | 2.5339002 | 2.5339002 |
| 341 | 21:00.5 | 574430 | 6.35303E+12 | 5.12815E+13 | 5713.4 | 0.026897 | 0.0229256 | 0.0831614 | 0.8321932 | 0.7093181 | 2.5344192 | 2.5344192 |
| 342 | 26:04.3 | 574430 | 6.35303E+12 | 5.12815E+13 | 5723.95 | 0.026897 | 0.0230408 | 0.083315 | 0.8321932 | 0.7131051 | 2.5390991 | 2.5390991 |
| 343 | 31:07.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5735.36 | 0.026897 | 0.0238875 | 0.0834811 | 0.8321932 | 0.7390793 | 2.5441605 | 2.5441605 |
| 344 | 36:10.4 | 574430 | 6.35303E+12 | 5.12815E+13 | 5739.01 | 0.026897 | 0.0236472 | 0.0835342 | 0.8321932 | 0.7316444 | 2.5457796 | 2.5457796 |
| 345 | 41:13.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5741.24 | 0.026897 | 0.0239907 | 0.0835666 | 0.8321932 | 0.7422723 | 2.5467688 | 2.5467688 |
| 346 | 46:16.4 | 574430 | 6.35303E+12 | 5.12815E+13 | 5724.65 | 0.026897 | 0.0464448 | 0.0833252 | 0.8321932 | 1.4370021 | 2.5394096 | 2.5394096 |
| 347 | 56:21.7 | 574432 | 6.35303E+12 | 4.99455E+13 | 5715.44 | 0.026897 | 0.046272 | 0.0854165 | 0.8321932 | 1.4316619 | 2.6031435 | 2.6031435 |
| 348 | 01:25.6 | 574432 | 6.35303E+12 | 4.99455E+13 | 5710.99 | 0.026856 | 0.0265005 | 0.08535 | 0.8309246 | 0.8060025 | 2.6011167 | 2.6011167 |
| 349 | 06:28.6 | 574433 | 6.35303E+12 | 4.98413E+13 | 5720.19 | 0.026856 | 0.0232273 | 0.0856661 | 0.8309246 | 0.7186527 | 2.6107513 | 2.6107513 |
| 350 | 11:32.0 | 574435 | 6.35303E+12 | 4.97656E+13 | 5727.69 | 0.026856 | 0.0241208 | 0.085909 | 0.8309246 | 0.7462976 | 2.6181535 | 2.6181535 |
| 351 | 16:35.1 | 574435 | 6.35303E+12 | 4.97656E+13 | 5726.31 | 0.026856 | 0.0265562 | 0.0858883 | 0.8309246 | 0.8216488 | 2.6175227 | 2.6175227 |
| 352 | 21:38.0 | 574437 | 6.35303E+12 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 38:00.1 | 574451 | 6.35303E+12 | 5.07309E+13 | 5728.02 | 0.0285642 | 0.0251649 | 0.0842791 | 0.8837763 | 0.778602 | 2.5684819 | 2.5684819 |
| 379 | 43:02.9 | 574453 | 6.35303E+12 | 5.08262E+13 | 5712.01 | 0.0285642 | 0.0253148 | 0.083886 | 0.8837763 | 0.7832399 | 2.5565013 | 2.5565013 |
| 380 | 48:06.0 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.36 | 0.0285642 | 0.0241284 | 0.08332 | 0.8837763 | 0.7465327 | 2.5392517 | 2.5392517 |
| 381 | 53:08.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5702.85 | 0.0285642 | 0.0233991 | 0.0831522 | 0.8837763 | 0.7239682 | 2.5341371 | 2.5341371 |
| 382 | 58:11.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5709.89 | 0.0285642 | 0.0231231 | 0.0832548 | 0.8837763 | 0.7154287 | 2.5372654 | 2.5372654 |
| 383 | 03:14.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5717.23 | 0.0308666 | 0.0242656 | 0.0833618 | 0.9550126 | 0.7507777 | 2.540527 | 2.540527 |
| 384 | 08:17.7 | 574454 | 6.35303E+12 | 5.11925E+13 | 5705.48 | 0.0308666 | 0.0233018 | 0.0831905 | 0.9550126 | 0.7209577 | 2.5353057 | 2.5353057 |
| 385 | 13:21.1 | 574454 | 6.35303E+12 | 5.11925E+13 | 5717.65 | 0.0308666 | 0.0235938 | 0.083368 | 0.9550126 | 0.7299922 | 2.5407136 | 2.5407136 |

Bearbox v Lancium
Trial Exhibit
TX920-8

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

Appx13435

BB10000919

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 18:57.8 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.85 | 0.0060427 | 0.005385 | 0.0737773 | 0.1869611 | 0.1666119 | 2.2484294 | 2.2484294 |
| 3 | 24:01.3 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.0060427 | 0.0064427 | 0.0737656 | 0.1869611 | 0.1993371 | 2.2480744 | 2.2480744 |
| 4 | 29:04.5 | 574204 | 6.35303E+12 | 5.38327E+13 | 5319.53 | 0.0060427 | 0.0066197 | 0.073759 | 0.1869611 | 0.2048135 | 2.2478716 | 2.2478716 |
| 5 | 34:07.5 | 574204 | 6.35303E+12 | 5.38327E+13 | 5323.01 | 0.0060427 | 0.0050811 | 0.0738072 | 0.1869611 | 0.1572092 | 2.2493421 | 2.2493421 |
| 6 | 39:10.8 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.95 | 0.0060427 | 0.0039673 | 0.0748335 | 0.1869611 | 0.1227483 | 2.2806172 | 2.2806172 |
| 7 | 44:13.7 | 574205 | 6.35303E+12 | 5.30839E+13 | 5326.49 | 0.0060427 | 0.0026429 | 0.0748973 | 0.1869611 | 0.0817713 | 2.2825627 | 2.2825627 |
| 8 | 49:17.3 | 574206 | 6.35303E+12 | 5.44532E+13 | 5325.49 | 0.0060427 | 0.0055617 | 0.0730003 | 0.1869611 | 0.172079 | 2.2247506 | 2.2247506 |
| 9 | 54:21.0 | 574207 | 6.35303E+12 | 5.39845E+13 | 5329.01 | 0.0060427 | 0.0078101 | 0.0736827 | 0.1869611 | 0.2416445 | 2.2455467 | 2.2455467 |
| 10 | 59:24.0 | 574207 | 6.35303E+12 | 5.39845E+13 | 5325.97 | 0.0060427 | 0.0013496 | 0.0736407 | 0.1869611 | 0.0417566 | 2.2442657 | 2.2442657 |
| 11 | 04:26.9 | 574208 | 6.35303E+12 | 5.34662E+13 | 5326.24 | 0.0010725 | 0.0028982 | 0.0743583 | 0.0331832 | 0.0896703 | 2.2661373 | 2.2661373 |
| 12 | 09:29.9 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0010725 | -0.0032033 | 0.0743412 | 0.0331832 | -0.0991101 | 2.2656139 | 2.2656139 |
| 13 | 14:32.8 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.61 | 0.0010725 | -0.0082933 | 0.0744587 | 0.0331832 | -0.2565947 | 2.2691954 | 2.2691954 |
| 14 | 19:35.8 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0010725 | 0.0010456 | 0.0744503 | 0.0331832 | 0.0323509 | 2.2689395 | 2.2689395 |
| 15 | 24:38.8 | 574210 | 6.35303E+12 | 5.36221E+13 | 5327.95 | 0.0010725 | 0.001341 | 0.074166 | 0.0331832 | 0.0414905 | 2.2602762 | 2.2602762 |
| 16 | 29:41.7 | 574212 | 6.35303E+12 | 5.54528E+13 | 5327.05 | 0.0010725 | -0.0189529 | 0.0717053 | 0.0331832 | -0.5864027 | 2.185285 | 2.185285 |
| 17 | 34:44.6 | 574212 | 6.35303E+12 | 5.54528E+13 | 5323.36 | 0.0010725 | -0.0315616 | 0.0716557 | 0.0331832 | -0.9765159 | 2.1837713 | 2.1837713 |
| 18 | 39:47.5 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0010725 | -0.0309173 | 0.0711001 | 0.0331832 | -0.9565813 | 2.1668382 | 2.1668382 |
| 19 | 44:50.4 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0010725 | -0.0300668 | 0.0711001 | 0.0331832 | -0.9302668 | 2.1668382 | 2.1668382 |
| 20 | 49:53.4 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.69 | 0.0010725 | -0.0266166 | 0.071148 | 0.0331832 | -0.8235176 | 2.1682995 | 2.1682995 |
| 21 | 54:56.2 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.7 | 0.0010725 | -0.031087 | 0.0711481 | 0.0331832 | -0.9618318 | 2.1683036 | 2.1683036 |
| 22 | 59:59.2 | 574216 | 6.35303E+12 | 5.54406E+13 | 5326.69 | 0.0010725 | -0.0320125 | 0.0717163 | 0.0331832 | -0.9904668 | 2.1856184 | 2.1856184 |
| 23 | 05:02.6 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.34 | 0.0004616 | -0.0310784 | 0.0717654 | 0.0142819 | -0.9615657 | 2.187116 | 2.187116 |
| 24 | 10:05.7 | 574219 | 6.35303E+12 | 5.59245E+13 | 5326.73 | 0.0004616 | -0.0029138 | 0.0710963 | 0.0142819 | -0.090153 | 2.1667245 | 2.1667245 |
| 25 | 15:08.7 | 574220 | 6.35303E+12 | 5.59914E+13 | 5330.77 | 0.0004616 | -0.0189733 | 0.0710652 | 0.0142819 | -0.5870339 | 2.1657754 | 2.1657754 |
| 26 | 20:11.5 | 574220 | 6.35303E+12 | 5.59914E+13 | 5343.74 | 0.0004616 | -0.0173406 | 0.0712381 | 0.0142819 | -0.5365182 | 2.1710449 | 2.1710449 |
| 27 | 25:14.5 | 574224 | 6.35303E+12 | 5.59847E+13 | 5336.19 | 0.0004616 | -0.0300341 | 0.071146 | 0.0142819 | -0.9292551 | 2.168237 | 2.168237 |
| 28 | 30:17.5 | 574226 | 6.35303E+12 | 5.60441E+13 | 5332.48 | 0.0004616 | -0.0260257 | 0.0710211 | 0.0142819 | -0.8052352 | 2.1644326 | 2.1644326 |
| 29 | 35:20.7 | 574227 | 6.35303E+12 | 5.56725E+13 | 5331.92 | 0.0004616 | -0.0190855 | 0.0714877 | 0.0142819 | -0.5905054 | 2.1786519 | 2.1786519 |
| 30 | 40:24.0 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | 0.0004616 | -0.0196742 | 0.0714897 | 0.0142819 | -0.6087197 | 2.1787132 | 2.1787132 |
| 31 | 45:26.9 | 574227 | 6.35303E+12 | 5.56725E+13 | 5339.99 | 0.0004616 | -0.0193638 | 0.0715959 | 0.0142819 | -0.599116 | 2.1819493 | 2.1819493 |
| 32 | 50:29.9 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.15 | 0.0004616 | -0.0290785 | 0.0721925 | 0.0142819 | -0.8996888 | 2.2001303 | 2.2001303 |
| 33 | 55:32.9 | 574229 | 6.35303E+12 | 5.5892E+13 | 5339.93 | 0.0004616 | -0.0235031 | 0.0713139 | 0.0142819 | -0.7271859 | 2.1733552 | 2.1733552 |
| 34 | 00:36.0 | 574229 | 6.35303E+12 | 5.5892E+13 | 5339.62 | 0.0003683 | -0.0186023 | 0.0713098 | 0.0113952 | -0.5755552 | 2.173229 | 2.173229 |
| 35 | 05:38.8 | 574229 | 6.35303E+12 | 5.5892E+13 | 5340.81 | 0.0003683 | -0.030799 | 0.0713256 | 0.0113952 | -0.9529211 | 2.1737133 | 2.1737133 |
| 36 | 10:41.7 | 574229 | 6.35303E+12 | 5.5892E+13 | 5346.19 | 0.0003683 | -0.0302803 | 0.0713975 | 0.0113952 | -0.9368725 | 2.175903 | 2.175903 |
| 37 | 15:45.1 | 574230 | 6.35303E+12 | 5.53347E+13 | 5351.26 | 0.0003683 | -0.030195 | 0.0721849 | 0.0113952 | -0.9342333 | 2.1999008 | 2.1999008 |
| 38 | 20:48.1 | 574231 | 6.35303E+12 | 5.49411E+13 | 5348.15 | 0.0003683 | -0.0280841 | 0.0726599 | 0.0113952 | -0.8689221 | 2.2143761 | 2.2143761 |
| 39 | 25:51.1 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.35 | 0.0003683 | -0.028219 | 0.0726219 | 0.0113952 | -0.8730959 | 2.2132168 | 2.2132168 |
| 40 | 30:54.2 | 574231 | 6.35303E+12 | 5.49411E+13 | 5345.27 | 0.0003683 | -0.0269783 | 0.0726208 | 0.0113952 | -0.8347086 | 2.2131836 | 2.2131836 |
| 41 | 35:57.2 | 574232 | 6.35303E+12 | 5.47061E+13 | 5350.24 | 0.0003683 | -0.0274456 | 0.0730005 | 0.0113952 | -0.8491669 | 2.2247569 | 2.2247569 |
| 42 | 41:00.3 | 574232 | 6.35303E+12 | 5.47061E+13 | 5346.06 | 0.0003683 | -0.0274731 | 0.0729435 | 0.0113952 | -0.8500177 | 2.2230187 | 2.2230187 |
| 43 | 46:03.7 | 574232 | 6.35303E+12 | 5.47061E+13 | 5353.06 | 0.0003683 | -0.0289024 | 0.073039 | 0.0113952 | -0.8942403 | 2.2259295 | 2.2259295 |
| 44 | 51:06.6 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.68 | 0.0003683 | -0.0281664 | 0.0731157 | 0.0113952 | -0.8714684 | 2.2282664 | 2.2282664 |
| 45 | 56:09.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5361.44 | 0.0003683 | -0.0264087 | 0.0731333 | 0.0113952 | -0.8170852 | 2.2294141 | 2.2294141 |
| 46 | 01:12.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5374.99 | 0.0029068 | -0.0263978 | 0.0733382 | 0.0899364 | -0.8167479 | 2.2350485 | 2.2350485 |
| 47 | 06:15.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5374.51 | 0.0029068 | -0.0027561 | 0.0749183 | 0.0899364 | -0.0852737 | 2.2832021 | 2.2832021 |
| 48 | 11:18.3 | 574233 | 6.35303E+12 | 5.35475E+13 | 5358.81 | 0.0029068 | -0.0007245 | 0.0746994 | 0.0899364 | -0.022416 | 2.2765324 | 2.2765324 |
| 49 | 16:21.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5364.9 | 0.0029068 | -0.0182589 | 0.0747843 | 0.0899364 | -0.5649304 | 2.2791195 | 2.2791195 |
| 50 | 21:24.5 | 574234 | 6.35303E+12 | 5.31615E+13 | 5359.77 | 0.0029068 | -0.0018612 | 0.0752553 | 0.0899364 | -0.0575855 | 2.293473 | 2.293473 |
| 51 | 26:27.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5359.03 | 0.0029068 | -0.0145596 | 0.0752449 | 0.0899364 | -0.450474 | 2.2931563 | 2.2931563 |
| 52 | 31:30.3 | 574234 | 6.35303E+12 | 5.31615E+13 | 5350.15 | 0.0029068 | -0.0032024 | 0.0751202 | 0.0899364 | -0.0990823 | 2.2893565 | 2.2893565 |
| 53 | 36:33.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5341.65 | 0.0029068 | -0.0159588 | 0.0750009 | 0.0899364 | -0.4937653 | 2.2857193 | 2.2857193 |
| 54 | 41:37.6 | 574236 | 6.35303E+12 | 5.29706E+13 | 5347.88 | 0.0029068 | -0.031347 | 0.075359 | 0.0899364 | -0.9698762 | 2.2966332 | 2.2966332 |
| 55 | 46:40.5 | 574237 | 6.35303E+12 | 5.26741E+13 | 5351.2 | 0.0029068 | -0.0299955 | 0.0758303 | 0.0899364 | -0.9280608 | 2.3109964 | 2.3109964 |
| 56 | 51:43.8 | 574238 | 6.35303E+12 | 5.2719E+13 | 5355.44 | 0.0029068 | -0.005314 | 0.0758257 | 0.0899364 | -0.1644152 | 2.3108556 | 2.3108556 |
| 57 | 56:47.1 | 574238 | 6.35303E+12 | 5.2719E+13 | 5345.98 | 0.0029068 | -0.0015188 | 0.0756917 | 0.0899364 | -0.0469917 | 2.3067736 | 2.3067736 |
| 58 | 01:50.1 | 574239 | 6.35303E+12 | 5.28168E+13 | 5350.18 | 0.0123358 | -0.0315408 | 0.0756109 | 0.3816697 | -0.9758724 | 2.3043114 | 2.3043114 |
| 59 | 06:52.9 | 574240 | 6.35303E+12 | 5.25658E+13 | 5350.99 | 0.0123358 | -0.0303257 | 0.0759835 | 0.3816697 | -0.9382772 | 2.3156641 | 2.3156641 |
| 60 | 11:55.9 | 574242 | 6.35303E+12 | 5.34165E+13 | 5348.27 | 0.0123358 | 9.42E-05 | 0.0747354 | 0.3816697 | 0.0029145 | 2.2776282 | 2.2776282 |
| 61 | 16:58.9 | 574243 | 6.35303E+12 | 5.35108E+13 | 5354.48 | 0.0123358 | 0.0004518 | 0.0746903 | 0.3816697 | 0.0139787 | 2.2762553 | 2.2762553 |
| 62 | 22:01.8 | 574245 | 6.35303E+12 | 5.38531E+13 | 5359.65 | 0.0123358 | 0.0010006 | 0.0742872 | 0.3816697 | 0.0309586 | 2.2639687 | 2.2639687 |
| 63 | 27:04.8 | 574246 | 6.35303E+12 | 5.41667E+13 | 5357.51 | 0.0123358 | -0.0032478 | 0.0738276 | 0.3816697 | -0.1004869 | 2.2499632 | 2.2499632 |
| 64 | 32:07.7 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.99 | 0.0123358 | -0.0012084 | 0.0738894 | 0.3816697 | -0.0373879 | 2.2518446 | 2.2518446 |
| 65 | 37:10.8 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.98 | 0.0123358 | 0.0049192 | 0.0738892 | 0.3816697 | 0.1522 | 2.2518404 | 2.2518404 |
| 66 | 42:13.6 | 574246 | 6.35303E+12 | 5.41667E+13 | 5366.22 | 0.0123358 | -0.0153369 | 0.0739476 | 0.3816697 | -0.4745237 | 2.2536211 | 2.2536211 |
| 67 | 47:16.4 | 574249 | 6.35303E+12 | 5.43573E+13 | 5361.59 | 0.0123358 | -0.001234 | 0.0736247 | 0.3816697 | -0.03818 | 2.2437799 | 2.2437799 |
| 68 | 52:19.3 | 574251 | 6.35303E+12 | 5.52479E+13 | 5360.9 | 0.0123358 | 0.0019206 | 0.0724286 | 0.3816697 | 0.0594234 | 2.2073275 | 2.2073275 |
| 69 | 57:22.2 | 574251 | 6.35303E+12 | 5.52479E+13 | 5354.26 | 0.0123358 | 0.0019529 | 0.0723389 | 0.3816697 | 0.0604227 | 2.2045935 | 2.2045935 |
| 70 | 02:25.2 | 574252 | 6.3 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 96 | 13:48.7 | 574269 | 6.35303E+12 | 5.58958E+13 | 5350.35 | 0.0192201 | 0.0089234 | 0.0714482 | 0.5946699 | 0.27609 | 2.1774474 | 2.1774474 |
| 97 | 18:51.9 | 574270 | 6.35303E+12 | 5.6144E+13 | 5350.01 | 0.0192201 | 0.0083345 | 0.0711278 | 0.5946699 | 0.2578694 | 2.1676825 | 2.1676825 |
| 98 | 23:54.8 | 574271 | 6.35303E+12 | 5.6095E+13 | 5356.14 | 0.0192201 | 0.0081467 | 0.0712715 | 0.5946699 | 0.2520589 | 2.172064 | 2.172064 |
| 99 | 28:57.8 | 574271 | 6.35303E+12 | 5.6095E+13 | 5348.01 | 0.0192201 | 0.0080171 | 0.0711633 | 0.5946699 | 0.2480491 | 2.168767 | 2.168767 |
| 100 | 34:00.7 | 574272 | 6.35303E+12 | 5.54087E+13 | 5356.18 | 0.0192201 | 0.0081756 | 0.0721548 | 0.5946699 | 0.2529531 | 2.1989837 | 2.1989837 |
| 101 | 39:03.7 | 574273 | 6.35303E+12 | 5.53104E+13 | 5355.34 | 0.0192201 | 0.0085978 | 0.0722717 | 0.5946699 | 0.2660159 | 2.2025454 | 2.2025454 |
| 102 | 44:07.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.28 | 0.0192201 | 0.0106277 | 0.072227 | 0.5946699 | 0.328821 | 2.2011814 | 2.2011814 |
| 103 | 49:10.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.11 | 0.0192201 | 0.0119739 | 0.0722112 | 0.5946699 | 0.3704725 | 2.2007005 | 2.2007005 |
| 104 | 54:13.2 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.14 | 0.0192201 | 0.0170918 | 0.0722251 | 0.5946699 | 0.5288203 | 2.2011238 | 2.2011238 |
| 105 | 59:16.2 | 574274 | 6.35303E+12 | 5.53441E+13 | 5369.69 | 0.0192201 | 0.0147439 | 0.0724213 | 0.5946699 | 0.4561763 | 2.2071043 | 2.2071043 |
| 106 | 04:19.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5370.68 | 0.0216772 | 0.0099164 | 0.0724347 | 0.6706926 | 0.3068134 | 2.2075112 | 2.2075112 |
| 107 | 09:22.5 | 574274 | 6.35303E+12 | 5.53441E+13 | 5367.34 | 0.0216772 | 0.0091219 | 0.0723896 | 0.6706926 | 0.2822316 | 2.2061384 | 2.2061384 |
| 108 | 14:25.5 | 574274 | 6.35303E+12 | 5.53441E+13 | 5364.39 | 0.0216772 | 0.0156346 | 0.0723498 | 0.6706926 | 0.4837345 | 2.2049258 | 2.2049258 |
| 109 | 19:28.4 | 574275 | 6.35303E+12 | 5.36343E+13 | 5366.28 | 0.0216772 | 0.0160516 | 0.0746825 | 0.6706926 | 0.4966365 | 2.276015 | 2.276015 |
| 110 | 24:31.3 | 574275 | 6.35303E+12 | 5.36343E+13 | 5371.27 | 0.0216772 | 0.0160404 | 0.0747519 | 0.6706926 | 0.49629 | 2.2781314 | 2.2781314 |
| 111 | 29:34.0 | 574275 | 6.35303E+12 | 5.36343E+13 | 5369.89 | 0.0216772 | 0.0158588 | 0.0747327 | 0.6706926 | 0.4906713 | 2.2775461 | 2.2775461 |
| 112 | 34:37.0 | 574277 | 6.35303E+12 | 5.50501E+13 | 5373.89 | 0.0216772 | 0.0200104 | 0.0728651 | 0.6706926 | 0.6191218 | 2.2206282 | 2.2206282 |
| 113 | 39:39.9 | 574280 | 6.35303E+12 | 5.61893E+13 | 5386.3 | 0.0216772 | 0.0192174 | 0.0715525 | 0.6706926 | 0.5945864 | 2.1806275 | 2.1806275 |
| 114 | 44:42.8 | 574281 | 6.35303E+12 | 5.67946E+13 | 5376.94 | 0.0216772 | 0.0172971 | 0.070667 | 0.6706926 | 0.5351723 | 2.1536405 | 2.1536405 |
| 115 | 49:45.4 | 574281 | 6.35303E+12 | 5.67946E+13 | 5380.34 | 0.0216772 | 0.0171393 | 0.0707117 | 0.6706926 | 0.5302899 | 2.1550023 | 2.1550023 |
| 116 | 54:48.5 | 574282 | 6.35303E+12 | 5.6096E+13 | 5376.01 | 0.0216772 | 0.0134753 | 0.0715347 | 0.6706926 | 0.4169258 | 2.1800845 | 2.1800845 |
| 117 | 59:51.6 | 574282 | 6.35303E+12 | 5.6096E+13 | 5379.99 | 0.0216772 | 0.0180380 | 0.0715877 | 0.6706926 | 0.557873 | 2.1816984 | 2.1816984 |
| 118 | 04:54.7 | 574283 | 6.35303E+12 | 5.56063E+13 | 5387.53 | 0.0236157 | 0.0178982 | 0.0723193 | 0.7306698 | 0.5537703 | 2.2039945 | 2.2039945 |
| 119 | 09:58.2 | 574283 | 6.35303E+12 | 5.56063E+13 | 5404.49 | 0.0236157 | 0.0199601 | 0.0725469 | 0.7306698 | 0.6175655 | 2.2109326 | 2.2109326 |
| 120 | 15:01.2 | 574283 | 6.35303E+12 | 5.56063E+13 | 5410.8 | 0.0236157 | 0.019843 | 0.0726316 | 0.7306698 | 0.6139424 | 2.213514 | 2.213514 |
| 121 | 20:04.6 | 574284 | 6.35303E+12 | 5.64188E+13 | 5402.18 | 0.0236157 | 0.0211652 | 0.0714716 | 0.7306698 | 0.6548513 | 2.1781617 | 2.1781617 |
| 122 | 25:08.2 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.01 | 0.0236157 | 0.0207169 | 0.0714561 | 0.7306698 | 0.6409809 | 2.17769 | 2.17769 |
| 123 | 30:11.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5408.19 | 0.0236157 | 0.0202099 | 0.072366 | 0.7306698 | 0.6252943 | 2.2054203 | 2.2054203 |
| 124 | 35:14.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5399.01 | 0.0236157 | 0.0197121 | 0.0722432 | 0.7306698 | 0.6098924 | 2.2016767 | 2.2016767 |
| 125 | 40:17.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.14 | 0.0236157 | 0.0205203 | 0.0722717 | 0.7306698 | 0.6348981 | 2.2025453 | 2.2025453 |
| 126 | 45:20.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.12 | 0.0236157 | 0.020253 | 0.0722714 | 0.7306698 | 0.6266278 | 2.2025372 | 2.2025372 |
| 127 | 50:23.3 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.01 | 0.0236157 | 0.0204966 | 0.0723101 | 0.7306698 | 0.6341648 | 2.2037157 | 2.2037157 |
| 128 | 55:26.4 | 574285 | 6.35303E+12 | 5.57835E+13 | 5402.66 | 0.0236157 | 0.0204779 | 0.0722292 | 0.7306698 | 0.6335862 | 2.2031652 | 2.2031652 |
| 129 | 00:29.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0246623 | 0.0205394 | 0.0723309 | 0.7630516 | 0.635489 | 2.2043478 | 2.2043478 |
| 130 | 05:32.6 | 574285 | 6.35303E+12 | 5.57835E+13 | 5408.51 | 0.0246623 | 0.020696 | 0.0723703 | 0.7630516 | 0.6403342 | 2.2055508 | 2.2055508 |
| 131 | 10:35.6 | 574286 | 6.35303E+12 | 5.36818E+13 | 5410.26 | 0.0246623 | 0.0206614 | 0.0752279 | 0.7630516 | 0.6392637 | 2.2926386 | 2.2926386 |
| 132 | 15:38.9 | 574287 | 6.35303E+12 | 5.50908E+13 | 5405.01 | 0.0246623 | 0.0206639 | 0.0732328 | 0.7630516 | 0.6393411 | 2.2318356 | 2.2318356 |
| 133 | 20:42.0 | 574287 | 6.35303E+12 | 5.50908E+13 | 5377.7 | 0.0246623 | 0.0207146 | 0.0728628 | 0.7630516 | 0.6409097 | 2.2205587 | 2.2205587 |
| 134 | 25:45.3 | 574288 | 6.35303E+12 | 5.6446E+13 | 5379.31 | 0.0246623 | 0.0207073 | 0.0711347 | 0.7630516 | 0.6406839 | 2.1678941 | 2.1678941 |
| 135 | 30:48.4 | 574289 | 6.35303E+12 | 5.61643E+13 | 5386.34 | 0.0246623 | 0.0211671 | 0.071585 | 0.7630516 | 0.673307 | 2.1816166 | 2.1816166 |
| 136 | 35:51.4 | 574289 | 6.35303E+12 | 5.61643E+13 | 5386.22 | 0.0246623 | 0.0218403 | 0.0715834 | 0.7630516 | 0.6757389 | 2.181568 | 2.181568 |
| 137 | 40:54.5 | 574289 | 6.35303E+12 | 5.61643E+13 | 5380.96 | 0.0246623 | 0.0212653 | 0.0715135 | 0.7630516 | 0.6579484 | 2.1794376 | 2.1794376 |
| 138 | 45:57.5 | 574289 | 6.35303E+12 | 5.61643E+13 | 5373.11 | 0.0246623 | 0.0218463 | 0.0714091 | 0.7630516 | 0.6760235 | 2.1762581 | 2.1762581 |
| 139 | 51:00.5 | 574290 | 6.35303E+12 | 5.56905E+13 | 5379.99 | 0.0246623 | 0.0219329 | 0.0721089 | 0.7630516 | 0.6786039 | 2.1975834 | 2.1975834 |
| 140 | 56:03.8 | 574293 | 6.35303E+12 | 5.63654E+13 | 5381.68 | 0.0246623 | 0.0219044 | 0.0712679 | 0.7630516 | 0.6777221 | 2.1719525 | 2.1719525 |
| 141 | 01:07.0 | 574294 | 6.35303E+12 | 5.66874E+13 | 5378.02 | 0.0258006 | 0.02135 | 0.0708148 | 0.7982706 | 0.660569 | 2.1581456 | 2.1581456 |
| 142 | 06:09.8 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.0258006 | 0.0215474 | 0.0704165 | 0.7982706 | 0.6666766 | 2.1460054 | 2.1460054 |
| 143 | 11:12.8 | 574296 | 6.35303E+12 | 5.69506E+13 | 5391.26 | 0.0258006 | 0.0217122 | 0.070661 | 0.7982706 | 0.6717755 | 2.1534583 | 2.1534583 |
| 144 | 16:15.8 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.44 | 0.0258006 | 0.0240987 | 0.0696352 | 0.7982706 | 0.7456138 | 2.1221966 | 2.1221966 |
| 145 | 21:19.0 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.43 | 0.0258006 | 0.0223207 | 0.0696351 | 0.7982706 | 0.6906025 | 2.1221927 | 2.1221927 |
| 146 | 26:22.1 | 574298 | 6.35303E+12 | 5.77593E+13 | 5393.86 | 0.0258006 | 0.0257788 | 0.0697053 | 0.7982706 | 0.7975961 | 2.1243313 | 2.1243313 |
| 147 | 31:25.5 | 574300 | 6.35303E+12 | 5.74492E+13 | 5390.38 | 0.0258006 | 0.0265151 | 0.0700363 | 0.7982706 | 0.8203772 | 2.13442 | 2.13442 |
| 148 | 36:29.7 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.27 | 0.0258006 | 0.0846763 | 0.0698488 | 0.7982706 | 2.6198847 | 2.1287047 | 2.1287047 |
| 149 | 41:33.9 | 574301 | 6.35303E+12 | 5.7613E+13 | 5391.2 | 0.0258006 | 0.2210761 | 0.0698479 | 0.7982706 | 6.8400945 | 2.1286771 | 2.1286771 |
| 150 | 46:37.9 | 574302 | 6.35303E+12 | 5.77583E+13 | 5394.99 | 0.0258006 | 0.1570346 | 0.0697211 | 0.7982706 | 4.8586505 | 2.1248138 | 2.1248138 |
| 151 | 51:42.1 | 574302 | 6.35303E+12 | 5.77583E+13 | 5394.99 | 0.0258006 | 0.1785148 | 0.0697211 | 0.7982706 | 5.5232479 | 2.1248138 | 2.1248138 |
| 152 | 56:46.2 | 574305 | 6.35303E+12 | 5.8471E+13 | 5394.98 | 0.0258006 | 0.1762844 | 0.0688712 | 0.7982706 | 5.4542393 | 2.0989108 | 2.0989108 |
| 153 | 01:50.2 | 574305 | 6.35303E+12 | 5.8471E+13 | 5392.44 | 0.0281961 | 0.2198672 | 0.0688387 | 0.8723873 | 6.8026912 | 2.0979226 | 2.0979226 |
| 154 | 06:53.7 | 574305 | 6.35303E+12 | 5.8471E+13 | 5392.99 | 0.0281961 | 0.0379209 | 0.0688458 | 0.8723873 | 1.1732726 | 2.0981366 | 2.0981366 |
| 155 | 11:56.7 | 574306 | 6.35303E+12 | 5.85526E+13 | 5393.03 | 0.0281961 | 0.0286261 | 0.0687504 | 0.8723873 | 0.8744294 | 2.0952297 | 2.0952297 |
| 156 | 17:00.1 | 574309 | 6.35303E+12 | 6.00748E+13 | 5396.48 | 0.0281961 | 0.0258381 | 0.0670512 | 0.8723873 | 0.7822591 | 2.0434454 | 2.0434454 |
| 157 | 22:03.0 | 574309 | 6.35303E+12 | 6.00748E+13 | 5397.01 | 0.0281961 | 0.0261016 | 0.0670578 | 0.8723873 | 0.8075835 | 2.0436461 | 2.0436461 |
| 158 | 27:06.2 | 574310 | 6.35303E+12 | 6.02983E+13 | 5396.19 | 0.0281961 | 0.0259345 | 0.0667991 | 0.8723873 | 0.8024134 | 2.0357628 | 2.0357628 |
| 159 | 32:09.2 | 574311 | 6.35303E+12 | 6.01255E+13 | 5399.99 | 0.0281961 | 0.0302117 | 0.0670382 | 0.8723873 | 0.93475 | 2.0430488 | 2.0430488 |
| 160 | 37:12.3 | 574311 | 6.35303E+12 | 6.01255E+13 | 5396.83 | 0.0281961 | 0.0302065 | 0.0669989 | 0.8723873 | 0.9345891 | 2.0418532 | 2.0418532 |
| 161 | 42:16.0 | 574312 | 6.35303E+12 | 5.99055E+13 | 5396.6 | 0.0281961 | 0.0302581 | 0.0672421 | 0.8723873 | 0.9361856 | 2.0492645 | 2.0492645 |
| 162 | 47:18.9 | 574312 | 6.35303E+12 | 5.99055E+13 | 5395.6 | 0.0281961 | 0.0260237 | 0.0672297 | 0.8723873 | 0.8051733 | 2.0488848 | 2.0488848 |
| 163 | 52:22.0 | 574315 | 6.35303E+12 | 5.97623E+13 | 5391.32 | 0.0281961 | 0.0287961 | 0.0673373 | 0.8723873 | 0.8909513 | 2.0521662 | 2.0521662 |
| 164 | 57:25.5 | 574315 | 6.35303E+12 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 08:45.0 | 574327 | 6.35303E+12 | 5.96067E+13 | 5401.47 | 0.030273 | 0.0287712 | 0.0676402 | 0.9366466 | 0.8901809 | 2.0613959 | 2.0613959 |
| 191 | 13:48.1 | 574327 | 6.35303E+12 | 5.96067E+13 | 5402.02 | 0.030273 | 0.0276182 | 0.0676471 | 0.9366466 | 0.8545071 | 2.0616058 | 2.0616058 |
| 192 | 18:51.1 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.01 | 0.030273 | 0.0258534 | 0.0676069 | 0.9366466 | 0.7999042 | 2.0603812 | 2.0603812 |
| 193 | 23:54.0 | 574328 | 6.35303E+12 | 5.96752E+13 | 5405.54 | 0.030273 | 0.0273201 | 0.0676135 | 0.9366466 | 0.8452839 | 2.0605832 | 2.0605832 |
| 194 | 28:57.0 | 574328 | 6.35303E+12 | 5.96752E+13 | 5411.23 | 0.030273 | 0.0271151 | 0.0676847 | 0.9366466 | 0.8389412 | 2.0627523 | 2.0627523 |
| 195 | 34:00.5 | 574329 | 6.35303E+12 | 5.94855E+13 | 5414.16 | 0.030273 | 0.0272609 | 0.0679373 | 0.9366466 | 0.8434522 | 2.0704516 | 2.0704516 |
| 196 | 39:03.4 | 574330 | 6.35303E+12 | 5.97035E+13 | 5414.16 | 0.030273 | 0.0272442 | 0.0676893 | 0.9366466 | 0.8429355 | 2.0628912 | 2.0628912 |
| 197 | 44:06.6 | 574331 | 6.35303E+12 | 5.96567E+13 | 5414.18 | 0.030273 | 0.0259561 | 0.0677426 | 0.9366466 | 0.8030817 | 2.0645162 | 2.0645162 |
| 198 | 49:10.2 | 574333 | 6.35303E+12 | 5.9734E+13 | 5407.51 | 0.030273 | 0.0270756 | 0.0675716 | 0.9366466 | 0.8377191 | 2.0593055 | 2.0593055 |
| 199 | 54:13.3 | 574333 | 6.35303E+12 | 5.9734E+13 | 5400.01 | 0.030273 | 0.0271004 | 0.0674779 | 0.9366466 | 0.8384864 | 2.0564494 | 2.0564494 |
| 200 | 59:16.4 | 574334 | 6.35303E+12 | 5.92562E+13 | 5403.78 | 0.030273 | 0.0273779 | 0.0680695 | 0.9366466 | 0.8470722 | 2.0744785 | 2.0744785 |
| 201 | 04:19.8 | 574335 | 6.35303E+12 | 5.9018E+13 | 5401.4 | 0.0290851 | 0.0283554 | 0.0683141 | 0.899893 | 0.8773161 | 2.0819329 | 2.0819329 |
| 202 | 09:23.3 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.65 | 0.0290851 | 0.0271462 | 0.0683046 | 0.899893 | 0.8399034 | 2.0816439 | 2.0816439 |
| 203 | 14:26.3 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.84 | 0.0290851 | 0.0271793 | 0.0667361 | 0.899893 | 0.8409275 | 2.0338434 | 2.0338434 |
| 204 | 19:29.7 | 574338 | 6.35303E+12 | 6.00814E+13 | 5403.99 | 0.0290851 | 0.0269492 | 0.0671371 | 0.899893 | 0.8338082 | 2.0460639 | 2.0460639 |
| 205 | 24:32.5 | 574341 | 6.35303E+12 | 6.05704E+13 | 5406.15 | 0.0290851 | 0.0265213 | 0.0666217 | 0.899893 | 0.820569 | 2.0303561 | 2.0303561 |
| 206 | 29:35.5 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.72 | 0.0290851 | 0.0269952 | 0.0667137 | 0.899893 | 0.8352315 | 2.0331615 | 2.0331615 |
| 207 | 34:38.6 | 574343 | 6.35303E+12 | 5.99395E+13 | 5402.02 | 0.0290851 | 0.0260047 | 0.0672715 | 0.899893 | 0.8045854 | 2.0501593 | 2.0501593 |
| 208 | 39:41.6 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.38 | 0.0290851 | 0.0266287 | 0.0672386 | 0.899893 | 0.823892 | 2.0491574 | 2.0491574 |
| 209 | 44:44.4 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.0290851 | 0.0265012 | 0.0676328 | 0.899893 | 0.8199471 | 2.0611697 | 2.0611697 |
| 210 | 49:47.3 | 574344 | 6.35303E+12 | 5.95861E+13 | 5394.85 | 0.0290851 | 0.0271631 | 0.0675807 | 0.899893 | 0.8404263 | 2.0595816 | 2.0595816 |
| 211 | 54:50.3 | 574344 | 6.35303E+12 | 5.95861E+13 | 5396.47 | 0.0290851 | 0.0265076 | 0.067601 | 0.899893 | 0.8201451 | 2.0602 | 2.0602 |
| 212 | 59:53.1 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.44 | 0.0290851 | 0.0266994 | 0.0676256 | 0.899893 | 0.8260794 | 2.0609521 | 2.0609521 |
| 213 | 04:56.9 | 574346 | 6.35303E+12 | 5.84022E+13 | 5394.51 | 0.02818 | 0.02274043 | 0.0689463 | 0.8718892 | 0.7035889 | 2.1012014 | 2.1012014 |
| 214 | 10:00.6 | 574347 | 6.35303E+12 | 5.86008E+13 | 5393.4 | 0.02818 | 0.0269004 | 0.0686985 | 0.8718892 | 0.8322984 | 2.0936499 | 2.0936499 |
| 215 | 15:04.1 | 574347 | 6.35303E+12 | 5.86008E+13 | 5397.48 | 0.02818 | 0.026967 | 0.0687505 | 0.8718892 | 0.834359 | 2.0952337 | 2.0952337 |
| 216 | 20:07.3 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.99 | 0.02818 | 0.0271281 | 0.0685905 | 0.8718892 | 0.8393434 | 2.0903567 | 2.0903567 |
| 217 | 25:10.3 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.15 | 0.02818 | 0.0268342 | 0.0685798 | 0.8718892 | 0.8302501 | 2.0900313 | 2.0900313 |
| 218 | 30:14.9 | 574349 | 6.35303E+12 | 5.84595E+13 | 5395.98 | 0.02818 | 0.0226576 | 0.0688975 | 0.8718892 | 0.70102614 | 2.0997122 | 2.0997122 |
| 219 | 35:17.9 | 574350 | 6.35303E+12 | 5.91267E+13 | 5396.77 | 0.02818 | 0.0272473 | 0.06813 | 0.8718892 | 0.8430315 | 2.0763241 | 2.0763241 |
| 220 | 40:20.9 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.88 | 0.02818 | 0.024981 | 0.0681188 | 0.8718892 | 0.7729121 | 2.059816 | 2.059816 |
| 221 | 45:24.0 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.8 | 0.02818 | 0.0257123 | 0.0679751 | 0.8718892 | 0.7955386 | 2.0716025 | 2.0716025 |
| 222 | 50:27.1 | 574351 | 6.35303E+12 | 5.92508E+13 | 5393.06 | 0.02818 | 0.0249229 | 0.0679406 | 0.8718892 | 0.7711145 | 2.0705505 | 2.0705505 |
| 223 | 55:30.2 | 574351 | 6.35303E+12 | 5.92508E+13 | 5392.02 | 0.02818 | 0.0251479 | 0.0679275 | 0.8718892 | 0.778076 | 2.0701512 | 2.0701512 |
| 224 | 00:33.0 | 574351 | 6.35303E+12 | 5.92508E+13 | 5390.01 | 0.0294406 | 0.0252162 | 0.0679022 | 0.9108922 | 0.7801892 | 2.0693795 | 2.0693795 |
| 225 | 05:35.8 | 574351 | 6.35303E+12 | 5.92508E+13 | 5365.12 | 0.0294406 | 0.0226972 | 0.0675886 | 0.9108922 | 0.7022514 | 2.0598235 | 2.0598235 |
| 226 | 10:38.7 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.99 | 0.0294406 | 0.0227666 | 0.0676752 | 0.9108922 | 0.7043986 | 2.0624611 | 2.0624611 |
| 227 | 15:41.6 | 574351 | 6.35303E+12 | 5.92508E+13 | 5379.7 | 0.0294406 | 0.0243866 | 0.0677723 | 0.9108922 | 0.7545212 | 2.0654212 | 2.0654212 |
| 228 | 20:44.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5378.3 | 0.0294406 | 0.0230678 | 0.0674322 | 0.9108922 | 0.7137177 | 2.0550568 | 2.0550568 |
| 229 | 25:47.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5381.03 | 0.0294406 | 0.0249763 | 0.0674664 | 0.9108922 | 0.7727667 | 2.0560999 | 2.0560999 |
| 230 | 30:50.5 | 574353 | 6.35303E+12 | 5.95341E+13 | 5392.25 | 0.0294406 | 0.0253991 | 0.0676071 | 0.9108922 | 0.7858482 | 2.0603871 | 2.0603871 |
| 231 | 35:53.6 | 574353 | 6.35303E+12 | 5.95341E+13 | 5394.16 | 0.0294406 | 0.0253424 | 0.067631 | 0.9108922 | 0.7840939 | 2.0611169 | 2.0611169 |
| 232 | 40:56.7 | 574353 | 6.35303E+12 | 5.95341E+13 | 5399.99 | 0.0294406 | 0.0250223 | 0.0677041 | 0.9108922 | 0.77419 | 2.0633446 | 2.0633446 |
| 233 | 45:59.6 | 574356 | 6.35303E+12 | 6.01278E+13 | 5396.88 | 0.0294406 | 0.0234576 | 0.0669971 | 0.9108922 | 0.7257781 | 2.0417971 | 2.0417971 |
| 234 | 51:02.7 | 574356 | 6.35303E+12 | 6.01278E+13 | 5394.77 | 0.0294406 | 0.0249344 | 0.0669709 | 0.9108922 | 0.7714703 | 2.0409989 | 2.0409989 |
| 235 | 56:05.8 | 574356 | 6.35303E+12 | 6.01278E+13 | 5402.4 | 0.0294406 | 0.022081 | 0.0670656 | 0.9108922 | 0.6831861 | 2.0438855 | 2.0438855 |
| 236 | 01:08.8 | 574357 | 6.35303E+12 | 5.98782E+13 | 5407.57 | 0.0358454 | 0.0219246 | 0.0674096 | 1.1090567 | 0.6783471 | 2.0543694 | 2.0543694 |
| 237 | 06:12.1 | 574357 | 6.35303E+12 | 5.98782E+13 | 5412.01 | 0.0358454 | 0.0217059 | 0.067465 | 1.1090567 | 0.6715805 | 2.0560562 | 2.0560562 |
| 238 | 11:15.1 | 574359 | 6.35303E+12 | 5.99023E+13 | 5413.47 | 0.0358454 | 0.0219481 | 0.067456 | 1.1090567 | 0.6790742 | 2.0557835 | 2.0557835 |
| 239 | 16:18.2 | 574360 | 6.35303E+12 | 6.0023E+13 | 5411.11 | 0.0358454 | 0.0220348 | 0.0672909 | 1.1090567 | 0.6817567 | 2.0507521 | 2.0507521 |
| 240 | 21:21.3 | 574360 | 6.35303E+12 | 6.0023E+13 | 5411.03 | 0.0358454 | 0.0228761 | 0.0672899 | 1.1090567 | 0.7077865 | 2.0507217 | 2.0507217 |
| 241 | 26:24.5 | 574360 | 6.35303E+12 | 6.0023E+13 | 5403.73 | 0.0358454 | 0.0226145 | 0.0671992 | 1.1090567 | 0.6996926 | 2.0479551 | 2.0479551 |
| 242 | 31:27.6 | 574361 | 6.35303E+12 | 5.95038E+13 | 5407.93 | 0.0358454 | 0.0246405 | 0.0678382 | 1.1090567 | 0.7623771 | 2.0674304 | 2.0674304 |
| 243 | 36:30.8 | 574361 | 6.35303E+12 | 5.95038E+13 | 5411.14 | 0.0358454 | 0.0360477 | 0.0678785 | 1.1090567 | 1.1153158 | 2.0686576 | 2.0686576 |
| 244 | 41:34.3 | 574362 | 6.35303E+12 | 5.87448E+13 | 5422.09 | 0.0358454 | 0.0239492 | 0.0668946 | 1.1090567 | 0.7409882 | 2.0996263 | 2.0996263 |
| 245 | 46:37.4 | 574362 | 6.35303E+12 | 5.87448E+13 | 5435.74 | 0.0358454 | 0.0225539 | 0.0690681 | 1.1090567 | 0.6978177 | 2.1049121 | 2.1049121 |
| 246 | 51:40.5 | 574362 | 6.35303E+12 | 5.87448E+13 | 5435.55 | 0.0358454 | 0.0241469 | 0.0690657 | 1.1090567 | 0.7471051 | 2.1048385 | 2.1048385 |
| 247 | 56:43.6 | 574363 | 6.35303E+12 | 5.80502E+13 | 5427.15 | 0.0358454 | 0.0327231 | 0.0697841 | 1.1090567 | 1.0124527 | 2.1267343 | 2.1267343 |
| 248 | 01:47.3 | 574363 | 6.35303E+12 | 5.80502E+13 | 5428.1 | 0.0269617 | 0.0483081 | 0.0697964 | 0.834195 | 1.4946526 | 2.1271066 | 2.1271066 |
| 249 | 06:50.1 | 574364 | 6.35303E+12 | 5.78645E+13 | 5441.31 | 0.0269617 | 0.0234265 | 0.0701907 | 0.834195 | 1.3936159 | 2.1391255 | 2.1391255 |
| 250 | 11:53.2 | 574364 | 6.35303E+12 | 5.78645E+13 | 5428.95 | 0.0269617 | 0.0243957 | 0.0700313 | 0.834195 | 0.754803 | 2.1342664 | 2.1342664 |
| 251 | 16:56.5 | 574367 | 6.35303E+12 | 5.84533E+13 | 5433.74 | 0.0269617 | 0.0247673 | 0.069387 | 0.834195 | 0.7663003 | 2.1146321 | 2.1146321 |
| 252 | 21:59.8 | 574367 | 6.35303E+12 | 5.84533E+13 | 5439.23 | 0.0269617 | 0.0232371 | 0.0694571 | 0.834195 | 0.7189559 | 2.1167686 | 2.1167686 |
| 253 | 27:03.6 | 574368 | 6.35303E+12 | 5.81378E+13 | 5433.99 | 0.0269617 | 0.0215394 | 0.0697668 | 0.834195 | 0.666429 | 2.1262058 | 2.1262058 |
| 254 | 32:06.7 | 574368 | 6.35303E+12 | 5.81378E+13 | 5443.02 | 0.0269617 | 0.0212281 | 0.0698827 | 0.834195 | 0.6567974 | 2.1297391 | 2.1297391 |
| 255 | 37:09.8 | 574369 | 6.35303E+12 | 5.7527E+13 | 5441.82 | 0.0269617 | 0.0207728 | 0.0706092 | 0.834195 | 0.6412253 | 2.1518775 | 2.1518775 |
| 256 | 42:13.0 | 574370 | 6.35303E+12 | 5.73316E+13 | 5444.99 | 0.0269617 | 0.0200896 | 0.0708911 | 0.834195 | 0.6215722 | 2.1604697 | 2.1604697 |
| 257 | 47:16.2 | 574370 | 6.35303E+12 | 5.73316E+13 | 5471.73 | 0.0269617 | 0.0200075 | 0.0712392 | 0.834195 | 0.6190321 | 2.1710796 | 2.1710796 |
| 258 | 52:19.8 | 574370 | 6.35303E+12 | 5.73316E+13 | 5464.57 | 0.026 | | | | | | |

| 1 | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 284 | 04:07.9 | 574388 | 6.35303E+12 | 5.41076E+13 | 5492.55 | 0.0171198 | 0.0184116 | 0.0757711 | 0.5296866 | 0.5696549 | 2.3091936 | 2.3091936 |
| 285 | 09:11.2 | 574388 | 6.35303E+12 | 5.41076E+13 | 5499.47 | 0.0171198 | 0.018402 | 0.0758666 | 0.5296866 | 0.5693579 | 2.3121029 | 2.3121029 |
| 286 | 14:14.7 | 574390 | 6.35303E+12 | 5.36713E+13 | 5497.38 | 0.0171198 | 0.0183991 | 0.0764543 | 0.5296866 | 0.5692682 | 2.3300147 | 2.3300147 |
| 287 | 19:17.4 | 574393 | 6.35303E+12 | 5.4543E+13 | 5505.67 | 0.0171198 | 0.0188975 | 0.0753459 | 0.5296866 | 0.5846887 | 2.296235 | 2.296235 |
| 288 | 24:20.4 | 574393 | 6.35303E+12 | 5.4543E+13 | 5525.72 | 0.0171198 | 0.0194457 | 0.0756203 | 0.5296866 | 0.60165 | 2.3045972 | 2.3045972 |
| 289 | 29:23.6 | 574393 | 6.35303E+12 | 5.4543E+13 | 5532.69 | 0.0171198 | 0.0193998 | 0.0757157 | 0.5296866 | 0.6002298 | 2.3075042 | 2.3075042 |
| 290 | 34:27.1 | 574393 | 6.35303E+12 | 5.4543E+13 | 5548.77 | 0.0171198 | 0.0195967 | 0.0759358 | 0.5296866 | 0.6063219 | 2.3142106 | 2.3142106 |
| 291 | 39:30.2 | 574394 | 6.35303E+12 | 5.38779E+13 | 5540.68 | 0.0171198 | 0.0195476 | 0.076761 | 0.5296866 | 0.6048027 | 2.3393597 | 2.3393597 |
| 292 | 44:33.4 | 574395 | 6.35303E+12 | 5.53825E+13 | 5512.91 | 0.0171198 | 0.0198241 | 0.0743014 | 0.5296866 | 0.6133577 | 2.2644017 | 2.2644017 |
| 293 | 49:36.3 | 574395 | 6.35303E+12 | 5.53825E+13 | 5524.53 | 0.0171198 | 0.0195437 | 0.074458 | 0.5296866 | 0.6046821 | 2.2691746 | 2.2691746 |
| 294 | 54:39.3 | 574395 | 6.35303E+12 | 5.53825E+13 | 5525.3 | 0.0171198 | 0.0195692 | 0.0744684 | 0.5296866 | 0.605471 | 2.2694909 | 2.2694909 |
| 295 | 59:42.3 | 574395 | 6.35303E+12 | 5.53825E+13 | 5518.69 | 0.0171198 | 0.0192178 | 0.0743793 | 0.5296866 | 0.5945987 | 2.2667759 | 2.2667759 |
| 296 | 04:45.3 | 574395 | 6.35303E+12 | 5.53825E+13 | 5533.7 | 0.0177576 | 0.0191891 | 0.0745816 | 0.5494201 | 0.5937108 | 2.2729411 | 2.2729411 |
| 297 | 09:48.1 | 574395 | 6.35303E+12 | 5.53825E+13 | 5530.29 | 0.0177576 | 0.0191378 | 0.0745356 | 0.5494201 | 0.5921235 | 2.2715405 | 2.2715405 |
| 298 | 14:51.2 | 574396 | 6.35303E+12 | 5.44713E+13 | 5534.64 | 0.0177576 | 0.0189612 | 0.0758421 | 0.5494201 | 0.5866595 | 2.3113551 | 2.3113551 |
| 299 | 19:54.1 | 574396 | 6.35303E+12 | 5.44713E+13 | 5544.31 | 0.0177576 | 0.0189168 | 0.0759746 | 0.5494201 | 0.5852858 | 2.3153934 | 2.3153934 |
| 300 | 24:57.0 | 574396 | 6.35303E+12 | 5.44713E+13 | 5549.76 | 0.0177576 | 0.018934 | 0.0760493 | 0.5494201 | 0.585818 | 2.3176694 | 2.3176694 |
| 301 | 30:00.1 | 574397 | 6.35303E+12 | 5.38389E+13 | 5535.92 | 0.0177576 | 0.019027 | 0.0767506 | 0.5494201 | 0.5886954 | 2.3390422 | 2.3390422 |
| 302 | 35:03.1 | 574397 | 6.35303E+12 | 5.38389E+13 | 5548.11 | 0.0177576 | 0.0186692 | 0.0769196 | 0.5494201 | 0.577625 | 2.3441927 | 2.3441927 |
| 303 | 40:06.4 | 574397 | 6.35303E+12 | 5.38389E+13 | 5576.84 | 0.0177576 | 0.0189082 | 0.0773179 | 0.5494201 | 0.5850197 | 2.3563317 | 2.3563317 |
| 304 | 45:09.5 | 574397 | 6.35303E+12 | 5.38389E+13 | 5588.49 | 0.0177576 | 0.0188137 | 0.0774794 | 0.5494201 | 0.5820959 | 2.3612541 | 2.3612541 |
| 305 | 50:12.8 | 574397 | 6.35303E+12 | 5.38389E+13 | 5580.14 | 0.0177576 | 0.0194016 | 0.0773636 | 0.5494201 | 0.6002855 | 2.3577261 | 2.3577261 |
| 306 | 55:16.0 | 574397 | 6.35303E+12 | 5.38389E+13 | 5584.03 | 0.0177576 | 0.0194473 | 0.0774176 | 0.5494201 | 0.6016995 | 2.3593697 | 2.3593697 |
| 307 | 00:19.0 | 574398 | 6.35303E+12 | 5.24135E+13 | 5587.36 | 0.0179634 | 0.0194473 | 0.0795704 | 0.5557876 | 0.6016995 | 2.4249801 | 2.4249801 |
| 308 | 05:22.0 | 574399 | 6.35303E+12 | 5.22154E+13 | 5575.01 | 0.0179634 | 0.0198978 | 0.0796957 | 0.5557876 | 0.6156379 | 2.4287994 | 2.4287994 |
| 309 | 10:25.0 | 574400 | 6.35303E+12 | 5.19602E+13 | 5558.15 | 0.0179634 | 0.0197059 | 0.079845 | 0.5557876 | 0.6097005 | 2.4333473 | 2.4333473 |
| 310 | 15:28.5 | 574400 | 6.35303E+12 | 5.19602E+13 | 5577.5 | 0.0179634 | 0.0197937 | 0.0801229 | 0.5557876 | 0.6124171 | 2.4418187 | 2.4418187 |
| 311 | 20:31.4 | 574400 | 6.35303E+12 | 5.19602E+13 | 5579.19 | 0.0179634 | 0.019798 | 0.0801472 | 0.5557876 | 0.6125501 | 2.4425586 | 2.4425586 |
| 312 | 25:34.2 | 574401 | 6.35303E+12 | 5.14241E+13 | 5571.72 | 0.0179634 | 0.0199501 | 0.0808744 | 0.5557876 | 0.6172561 | 2.4647197 | 2.4647197 |
| 313 | 30:37.1 | 574401 | 6.35303E+12 | 5.14241E+13 | 5570.01 | 0.0179634 | 0.0199163 | 0.0808496 | 0.5557876 | 0.6162103 | 2.4639632 | 2.4639632 |
| 314 | 35:40.1 | 574402 | 6.35303E+12 | 5.15991E+13 | 5590.6 | 0.0179634 | 0.0206372 | 0.0808732 | 0.5557876 | 0.638515 | 2.4646821 | 2.4646821 |
| 315 | 40:43.0 | 574403 | 6.35303E+12 | 5.16659E+13 | 5618.11 | 0.0179634 | 0.0201332 | 0.0811661 | 0.5557876 | 0.6229212 | 2.4736097 | 2.4736097 |
| 316 | 45:45.9 | 574404 | 6.35303E+12 | 5.22163E+13 | 5610.56 | 0.0179634 | 0.0210943 | 0.0802027 | 0.5557876 | 0.6835976 | 2.444248 | 2.444248 |
| 317 | 50:48.6 | 574406 | 6.35303E+12 | 5.44332E+13 | 5659.03 | 0.0179634 | 0.0201857 | 0.0776008 | 0.5557876 | 0.6245456 | 2.3649536 | 2.3649536 |
| 318 | 55:51.5 | 574406 | 6.35303E+12 | 5.44332E+13 | 5657.45 | 0.0179634 | 0.0201063 | 0.0775791 | 0.5557876 | 0.6220889 | 2.3642933 | 2.3642933 |
| 319 | 00:54.3 | 574407 | 6.35303E+12 | 5.44179E+13 | 5681.44 | 0.0187756 | 0.0190108 | 0.0779301 | 0.5809171 | 0.5881942 | 2.3749899 | 2.3749899 |
| 320 | 05:57.2 | 574408 | 6.35303E+12 | 5.43366E+13 | 5664.77 | 0.0187756 | 0.0196478 | 0.0778177 | 0.5809171 | 0.6079029 | 2.3715634 | 2.3715634 |
| 321 | 11:00.1 | 574409 | 6.35303E+12 | 5.45039E+13 | 5675.15 | 0.0187756 | 0.019932 | 0.0777209 | 0.5809171 | 0.6166961 | 2.368615 | 2.368615 |
| 322 | 16:03.5 | 574409 | 6.35303E+12 | 5.45039E+13 | 5712.4 | 0.0187756 | 0.0201859 | 0.0782311 | 0.5809171 | 0.6245517 | 2.3841619 | 2.3841619 |
| 323 | 21:07.1 | 574409 | 6.35303E+12 | 5.45039E+13 | 5686.74 | 0.0187756 | 0.0225242 | 0.0778796 | 0.5809171 | 0.6968987 | 2.3734522 | 2.3734522 |
| 324 | 26:10.3 | 574410 | 6.35303E+12 | 5.4739E+13 | 5682.68 | 0.0187756 | 0.0206965 | 0.0774898 | 0.5809171 | 0.6403497 | 2.3615721 | 2.3615721 |
| 325 | 31:13.5 | 574410 | 6.35303E+12 | 5.4739E+13 | 5696.73 | 0.0187756 | 0.0215966 | 0.0776814 | 0.5809171 | 0.6681988 | 2.3674109 | 2.3674109 |
| 326 | 36:16.9 | 574410 | 6.35303E+12 | 5.4739E+13 | 5721.55 | 0.0187756 | 0.0216764 | 0.0780199 | 0.5809171 | 0.6706678 | 2.3777254 | 2.3777254 |
| 327 | 41:19.9 | 574410 | 6.35303E+12 | 5.4739E+13 | 5723.36 | 0.0187756 | 0.0214227 | 0.0780445 | 0.5809171 | 0.6628183 | 2.3784776 | 2.3784776 |
| 328 | 46:23.0 | 574410 | 6.35303E+12 | 5.4739E+13 | 5753.44 | 0.0187756 | 0.0229512 | 0.0784547 | 0.5809171 | 0.7101101 | 2.3909781 | 2.3909781 |
| 329 | 51:26.1 | 574410 | 6.35303E+12 | 5.4739E+13 | 5751.61 | 0.0187756 | 0.0234893 | 0.0784298 | 0.5809171 | 0.7267589 | 2.3902176 | 2.3902176 |
| 330 | 56:29.0 | 574412 | 6.35303E+12 | 5.33495E+13 | 5783.15 | 0.0187756 | 0.0444265 | 0.0809138 | 0.5809171 | 1.3745559 | 2.465921 | 2.465921 |
| 331 | 01:31.9 | 574412 | 6.35303E+12 | 5.33495E+13 | 5778.34 | 0.0236295 | 0.0250626 | 0.0808465 | 0.7310967 | 0.7754368 | 2.46387 | 2.46387 |
| 332 | 06:34.9 | 574412 | 6.35303E+12 | 5.33495E+13 | 5717.03 | 0.0236295 | 0.0224619 | 0.0799887 | 0.7310967 | 0.6949712 | 2.4377276 | 2.4377276 |
| 333 | 11:38.0 | 574412 | 6.35303E+12 | 5.33495E+13 | 5720.45 | 0.0236295 | 0.0232839 | 0.0800365 | 0.7310967 | 0.7204039 | 2.4391858 | 2.4391858 |
| 334 | 16:40.9 | 574413 | 6.35303E+12 | 5.25253E+13 | 5714.68 | 0.0236295 | 0.0234838 | 0.0812103 | 0.7310967 | 0.7265888 | 2.4749582 | 2.4749582 |
| 335 | 21:43.7 | 574413 | 6.35303E+12 | 5.25253E+13 | 5731.49 | 0.0236295 | 0.0221746 | 0.0814492 | 0.7310967 | 0.6860821 | 2.4822384 | 2.4822384 |
| 336 | 26:46.8 | 574413 | 6.35303E+12 | 5.25253E+13 | 5723.09 | 0.0236295 | 0.0254915 | 0.0813299 | 0.7310967 | 0.788707 | 2.4786004 | 2.4786004 |
| 337 | 31:50.0 | 574414 | 6.35303E+12 | 5.19701E+13 | 5734.99 | 0.0236295 | 0.0253002 | 0.0823697 | 0.7310967 | 0.7827882 | 2.5102894 | 2.5102894 |
| 338 | 36:53.0 | 574414 | 6.35303E+12 | 5.19701E+13 | 5744.23 | 0.0236295 | 0.0255777 | 0.0825504 | 0.7310967 | 0.791374 | 2.5143339 | 2.5143339 |
| 339 | 41:56.0 | 574416 | 6.35303E+12 | 5.19215E+13 | 5727.36 | 0.0236295 | 0.0254854 | 0.0823371 | 0.7310967 | 0.7885183 | 2.5092973 | 2.5092973 |
| 340 | 46:59.2 | 574418 | 6.35303E+12 | 5.19586E+13 | 5734.35 | 0.0236295 | 0.0224637 | 0.0823788 | 0.7310967 | 0.6950269 | 2.510567 | 2.510567 |
| 341 | 52:02.0 | 574420 | 6.35303E+12 | 5.25895E+13 | 5710.56 | 0.0236295 | 0.036317 | 0.0810529 | 0.7310967 | 1.123648 | 2.4701587 | 2.4701587 |
| 342 | 57:05.3 | 574421 | 6.35303E+12 | 5.25734E+13 | 5677.64 | 0.0236295 | 0.023519 | 0.0806102 | 0.7310967 | 0.7276779 | 2.4566683 | 2.4566683 |
| 343 | 02:08.1 | 574422 | 6.35303E+12 | 5.2543E+13 | 5686.55 | 0.0268916 | 0.0219254 | 0.0807834 | 0.8320261 | 0.6783719 | 2.4619458 | 2.4619458 |
| 344 | 07:11.0 | 574423 | 6.35303E+12 | 5.29406E+13 | 5686.98 | 0.0268916 | 0.0218438 | 0.0801828 | 0.8320261 | 0.6758472 | 2.4436417 | 2.4436417 |
| 345 | 12:13.8 | 574424 | 6.35303E+12 | 5.28202E+13 | 5690.22 | 0.0268916 | 0.0219166 | 0.0804113 | 0.8320261 | 0.6780996 | 2.4506078 | 2.4506078 |
| 346 | 17:16.6 | 574424 | 6.35303E+12 | 5.28202E+13 | 5676.93 | 0.0268916 | 0.0283 | 0.0802235 | 0.8320261 | 0.875602 | 2.4448842 | 2.4448842 |
| 347 | 22:19.5 | 574426 | 6.35303E+12 | 5.30049E+13 | 5683.45 | 0.0268916 | 0.0487112 | 0.0800358 | 0.8320261 | 1.5071245 | 2.4391635 | 2.4391635 |
| 348 | 27:23.6 | 574426 | 6.35303E+12 | 5.30049E+13 | 5679.11 | 0.0268916 | 0.0237194 | 0.0799747 | 0.8320261 | 7.3395682 | 2.4373009 | 2.395682 |
| 349 | 32:27.6 | 574427 | 6.35303E+12 | 5.28466E+13 | 5693.6 | 0.0268916 | 0.0229584 | 0.0804189 | 0.8320261 | 7.1033537 | 2.4508373 | 7.1033537 |
| 350 | 37:30.4 | 574427 | 6.35303E+12 | 5.28466E+13 | 5702.84 | 0.0268916 | 0.0489678 | 0.0805494 | 0.8320261 | 1.5150637 | 2.4548147 | 2.4548147 |
| 351 | 42:33.4 | 574428 | 6.35303E+12 | 5.2354E+13 | 5719.96 | 0.0268916 | 0.0279098 | 0.0815514 | 0.8320261 | 0.8635292 | 2.4853515 | 2.4853515 |
| 352 | 47:36.4 | 574428 | 6.35303E | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 58:56.5 | 574443 | 6.35303E+12 | 5.28228E+13 | 5739.99 | 0.027516 | 0.0256215 | 0.0811107 | 0.851345 | 0.7927292 | 2.4719226 | 2.4719226 |
| 379 | 03:59.3 | 574443 | 6.35303E+12 | 5.28228E+13 | 5735.16 | 0.0300224 | 0.0258636 | 0.0810425 | 0.9288931 | 0.8002198 | 2.4698426 | 2.4698426 |
| 380 | 09:02.7 | 574443 | 6.35303E+12 | 5.28228E+13 | 5751.51 | 0.0300224 | 0.0247336 | 0.0812735 | 0.9288931 | 0.7652576 | 2.4768837 | 2.4768837 |
| 381 | 14:05.7 | 574443 | 6.35303E+12 | 5.28228E+13 | 5760.39 | 0.0300224 | 0.0249539 | 0.081399 | 0.9288931 | 0.7720737 | 2.4807079 | 2.4807079 |
| 382 | 19:09.0 | 574443 | 6.35303E+12 | 5.28228E+13 | 5759.7 | 0.0300224 | 0.0252528 | 0.0813893 | 0.9288931 | 0.7813216 | 2.4804107 | 2.4804107 |
| 383 | 24:12.2 | 574444 | 6.35303E+12 | 5.21447E+13 | 5765.94 | 0.0300224 | 0.0251079 | 0.0825368 | 0.9288931 | 0.7768384 | 2.5153845 | 2.5153845 |
| 384 | 29:15.1 | 574445 | 6.35303E+12 | 5.19166E+13 | 5760.01 | 0.0300224 | 0.028066 | 0.0828144 | 0.9288931 | 0.868362 | 2.5238421 | 2.5238421 |
| 385 | 34:18.0 | 574446 | 6.35303E+12 | 5.17083E+13 | 5752.55 | 0.0300224 | 0.0345945 | 0.0830402 | 0.9288931 | 1.0703538 | 2.5307244 | 2.5307244 |
| 386 | 39:20.9 | 574446 | 6.35303E+12 | 5.17083E+13 | 5767.39 | 0.0300224 | 0.0278833 | 0.0832544 | 0.9288931 | 0.8627093 | 2.537253 | 2.537253 |
| 387 | 44:23.9 | 574446 | 6.35303E+12 | 5.17083E+13 | 5759.99 | 0.0300224 | 0.0266611 | 0.0831476 | 0.9288931 | 0.8248944 | 2.5339975 | 2.5339975 |
| 388 | 49:26.8 | 574448 | 6.35303E+12 | 5.19511E+13 | 5756.94 | 0.0300224 | 0.0267976 | 0.0827151 | 0.9288931 | 0.8291177 | 2.5208172 | 2.5208172 |
| 389 | 54:30.1 | 574448 | 6.35303E+12 | 5.19511E+13 | 5735.1 | 0.0300224 | 0.0267019 | 0.0824013 | 0.9288931 | 0.8261568 | 2.511254 | 2.511254 |
| 390 | 59:33.0 | 574448 | 6.35303E+12 | 5.19511E+13 | 5719.45 | 0.0300224 | 0.0300539 | 0.0821764 | 0.9288931 | 0.9298677 | 2.5044012 | 2.5044012 |
| 391 | 04:36.4 | 574448 | 6.35303E+12 | 5.19511E+13 | 5702.8 | 0.0292181 | 0.0270051 | 0.0819372 | 0.904008 | 0.8355378 | 2.4971106 | 2.4971106 |
| 392 | 09:39.4 | 574449 | 6.35303E+12 | 5.17328E+13 | 5699.65 | 0.0292181 | 0.0251577 | 0.0822376 | 0.904008 | 0.7783792 | 2.5062642 | 2.5062642 |
| 393 | 14:42.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.01 | 0.0292181 | 0.0257413 | 0.0825556 | 0.904008 | 0.7964358 | 2.5159564 | 2.5159564 |
| 394 | 19:45.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5715.9 | 0.0292181 | 0.0260754 | 0.0825685 | 0.904008 | 0.8067729 | 2.5163482 | 2.5163482 |
| 395 | 24:48.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5710.01 | 0.0292181 | 0.0257615 | 0.0824834 | 0.904008 | 0.7970608 | 2.5137552 | 2.5137552 |
| 396 | 29:51.6 | 574450 | 6.35303E+12 | 5.16724E+13 | 5720.01 | 0.0292181 | 0.0258404 | 0.0826278 | 0.904008 | 0.7995502 | 2.5181576 | 2.5181576 |
| 397 | 34:54.4 | 574450 | 6.35303E+12 | 5.16724E+13 | 5725.31 | 0.0292181 | 0.0255507 | 0.0827044 | 0.904008 | 0.7905387 | 2.5204908 | 2.5204908 |
| 398 | 39:57.2 | 574452 | 6.35303E+12 | 5.09821E+13 | 5720.01 | 0.0292181 | 0.0261083 | 0.0837466 | 0.904008 | 0.8077908 | 2.5522533 | 2.5522533 |
| 399 | 45:00.3 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.05 | 0.0292181 | 0.026223 | 0.0833155 | 0.904008 | 0.8113396 | 2.5391139 | 2.5391139 |
| 400 | 50:03.4 | 574454 | 6.35303E+12 | 5.11925E+13 | 5704.48 | 0.0292181 | 0.025018 | 0.0831759 | 0.904008 | 0.7740569 | 2.5348614 | 2.5348614 |
| 401 | 55:06.5 | 574454 | 6.35303E+12 | 5.11925E+13 | 5709.99 | 0.0292181 | 0.0242779 | 0.0832563 | 0.904008 | 0.7511582 | 2.5373098 | 2.5373098 |
| 402 | 00:09.5 | 574454 | 6.35303E+12 | 5.11925E+13 | 5711.52 | 0.0316117 | 0.0239833 | 0.0832786 | 0.978066 | 0.7420433 | 2.5379897 | 2.5379897 |
| 403 | 05:12.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5715.02 | 0.0316117 | 0.0251484 | 0.0833296 | 0.978066 | 0.7780915 | 2.539545 | 2.539545 |
| 404 | 10:15.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5705.02 | 0.0316117 | 0.024145 | 0.0831838 | 0.978066 | 0.7470463 | 2.5351013 | 2.5351013 |

Bearbox v Lancium
Trial Exhibit
TX920-10

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

Appx13441

BB10000921

| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 2 | 22:13.7 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.02 | 0.0059375 | 0.0061512 | 0.0737658 | 0.1837063 | 0.1903181 | 2.2480786 | 2.2480786 |
| 3 | 27:16.8 | 574204 | 6.35303E+12 | 5.38327E+13 | 5320.01 | 0.0059375 | 0.0062341 | 0.0737656 | 0.1837063 | 0.1928831 | 2.2480744 | 2.2480744 |
| 4 | 32:19.8 | 574204 | 6.35303E+12 | 5.38327E+13 | 5321.94 | 0.0059375 | 0.0048202 | 0.0737924 | 0.1837063 | 0.149137 | 2.24889 | 2.24889 |
| 5 | 37:22.9 | 574205 | 6.35303E+12 | 5.30839E+13 | 5321.95 | 0.0059375 | 0.0036136 | 0.0748335 | 0.1837063 | 0.1118048 | 2.2806172 | 2.2806172 |
| 6 | 42:25.9 | 574205 | 6.35303E+12 | 5.30839E+13 | 5325.19 | 0.0059375 | 0.0022848 | 0.074879 | 0.1837063 | 0.0706917 | 2.2820056 | 2.2820056 |
| 7 | 47:28.9 | 574206 | 6.35303E+12 | 5.44532E+13 | 5328.27 | 0.0059375 | 0.0052204 | 0.0730384 | 0.1837063 | 0.1615192 | 2.225912 | 2.225912 |
| 8 | 52:31.9 | 574206 | 6.35303E+12 | 5.44532E+13 | 5328.65 | 0.0059375 | 0.0074321 | 0.0730436 | 0.1837063 | 0.2299492 | 2.2260707 | 2.2260707 |
| 9 | 57:34.9 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.68 | 0.0059375 | 0.0009997 | 0.0736643 | 0.1837063 | 0.0309307 | 2.2449863 | 2.2449863 |
| 10 | 02:37.8 | 574207 | 6.35303E+12 | 5.39845E+13 | 5327.22 | 0.0009735 | 0.0025864 | 0.073658 | 0.0301201 | 0.0800232 | 2.2447925 | 2.2447925 |
| 11 | 07:40.8 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0009735 | -0.034704 | 0.0743412 | 0.0301201 | -0.1073742 | 2.2656139 | 2.2656139 |
| 12 | 12:43.8 | 574208 | 6.35303E+12 | 5.34662E+13 | 5325.01 | 0.0009735 | -0.0085232 | 0.0743412 | 0.0301201 | -0.2637078 | 2.2656139 | 2.2656139 |
| 13 | 17:46.9 | 574209 | 6.35303E+12 | 5.33477E+13 | 5321.01 | 0.0009735 | 0.0007819 | 0.0744503 | 0.0301201 | 0.024192 | 2.2689395 | 2.2689395 |
| 14 | 22:49.7 | 574209 | 6.35303E+12 | 5.33477E+13 | 5327.95 | 0.0009735 | 0.0010434 | 0.0745474 | 0.0301201 | 0.0322282 | 2.2718988 | 2.2718988 |
| 15 | 27:53.3 | 574211 | 6.35303E+12 | 5.42133E+13 | 5325.19 | 0.0009735 | -0.0190352 | 0.0733191 | 0.0301201 | -0.5889491 | 2.2344662 | 2.2344662 |
| 16 | 32:56.5 | 574212 | 6.35303E+12 | 5.54528E+13 | 5323.43 | 0.0009735 | -0.0316021 | 0.0716566 | 0.0301201 | -0.977769 | 2.1838 | 2.1838 |
| 17 | 37:59.5 | 574214 | 6.35303E+12 | 5.533E+13 | 5323.35 | 0.0009735 | -0.0308754 | 0.0718145 | 0.0301201 | -0.9552849 | 2.1886119 | 2.1886119 |
| 18 | 43:03.0 | 574215 | 6.35303E+12 | 5.58834E+13 | 5323.1 | 0.0009735 | -0.0299834 | 0.0711001 | 0.0301201 | -0.9276864 | 2.1668382 | 2.1668382 |
| 19 | 48:06.0 | 574215 | 6.35303E+12 | 5.58834E+13 | 5326.55 | 0.0009735 | -0.026648 | 0.0711461 | 0.0301201 | -0.8244891 | 2.1682425 | 2.1682425 |
| 20 | 53:09.5 | 574215 | 6.35303E+12 | 5.58834E+13 | 5328.3 | 0.0009735 | -0.030956 | 0.0711695 | 0.0301201 | -0.9577786 | 2.1689549 | 2.1689549 |
| 21 | 58:12.8 | 574216 | 6.35303E+12 | 5.54406E+13 | 5326.69 | 0.0009735 | -0.031885 | 0.0717163 | 0.0301201 | -0.9865219 | 2.1856184 | 2.1856184 |
| 22 | 03:15.8 | 574216 | 6.35303E+12 | 5.54406E+13 | 5330.35 | 0.0003732 | -0.0310131 | 0.0717656 | 0.0115468 | -0.9595453 | 2.1871201 | 2.1871201 |
| 23 | 08:18.9 | 574218 | 6.35303E+12 | 5.58377E+13 | 5330.78 | 0.0003732 | -0.0030349 | 0.071261 | 0.0115468 | -0.0938998 | 2.1717421 | 2.1717421 |
| 24 | 13:22.6 | 574220 | 6.35303E+12 | 5.59914E+13 | 5329.45 | 0.0003732 | -0.0190837 | 0.0710476 | 0.0115468 | -0.5904497 | 2.1652392 | 2.1652392 |
| 25 | 18:25.7 | 574220 | 6.35303E+12 | 5.59914E+13 | 5348.41 | 0.0003732 | -0.0174614 | 0.0713003 | 0.0115468 | -0.5402557 | 2.1729422 | 2.1729422 |
| 26 | 23:28.8 | 574223 | 6.35303E+12 | 5.60912E+13 | 5338.35 | 0.0003732 | -0.0275277 | 0.0710397 | 0.0115468 | -0.851707 | 2.164998 | 2.164998 |
| 27 | 28:31.6 | 574226 | 6.35303E+12 | 5.60441E+13 | 5328.39 | 0.0003732 | -0.0300566 | 0.0709666 | 0.0115468 | -0.9299605 | 2.1627725 | 2.1627725 |
| 28 | 33:34.4 | 574226 | 6.35303E+12 | 5.60441E+13 | 5333.1 | 0.0003732 | -0.0260876 | 0.0710294 | 0.0115468 | -0.8071503 | 2.1646843 | 2.1646843 |
| 29 | 38:37.6 | 574227 | 6.35303E+12 | 5.56725E+13 | 5332.07 | 0.0003732 | -0.0192161 | 0.0714897 | 0.0115468 | -0.5945461 | 2.1787132 | 2.1787132 |
| 30 | 43:40.6 | 574227 | 6.35303E+12 | 5.56725E+13 | 5339.02 | 0.0003732 | -0.0197771 | 0.0715829 | 0.0115468 | -0.6119035 | 2.181553 | 2.181553 |
| 31 | 48:43.8 | 574228 | 6.35303E+12 | 5.52451E+13 | 5343.15 | 0.0003732 | -0.0194532 | 0.0721925 | 0.0115468 | -0.601882 | 2.2001303 | 2.2001303 |
| 32 | 53:47.1 | 574229 | 6.35303E+12 | 5.5892E+13 | 5338.61 | 0.0003732 | -0.0291334 | 0.0712963 | 0.0115468 | -0.9013874 | 2.1728179 | 2.1728179 |
| 33 | 58:50.2 | 574229 | 6.35303E+12 | 5.5892E+13 | 5336.51 | 0.0003732 | -0.0235618 | 0.0712682 | 0.0115468 | -0.7290021 | 2.1719632 | 2.1719632 |
| 34 | 03:53.5 | 574229 | 6.35303E+12 | 5.5892E+13 | 5340.15 | 0.0002799 | -0.0187222 | 0.0713168 | 0.0086601 | -0.5792649 | 2.1734447 | 2.1734447 |
| 35 | 08:56.9 | 574229 | 6.35303E+12 | 5.5892E+13 | 5341.69 | 0.0002799 | -0.0308233 | 0.0713374 | 0.0086601 | -0.9536729 | 2.1740715 | 2.1740715 |
| 36 | 14:00.0 | 574230 | 6.35303E+12 | 5.53347E+13 | 5346.1 | 0.0002799 | -0.0302971 | 0.0721153 | 0.0086601 | -0.9373923 | 2.1977795 | 2.1977795 |
| 37 | 19:03.3 | 574230 | 6.35303E+12 | 5.53347E+13 | 5347.19 | 0.0002799 | -0.0301938 | 0.072123 | 0.0086601 | -0.9341962 | 2.1982276 | 2.1982276 |
| 38 | 24:06.5 | 574231 | 6.35303E+12 | 5.49411E+13 | 5341.77 | 0.0002799 | -0.0280347 | 0.0725732 | 0.0086601 | -0.8673936 | 2.2117345 | 2.2117345 |
| 39 | 29:09.8 | 574231 | 6.35303E+12 | 5.49411E+13 | 5342.48 | 0.0002799 | -0.0281744 | 0.0725829 | 0.0086601 | -0.8717159 | 2.2120284 | 2.2120284 |
| 40 | 34:12.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5349.99 | 0.0002799 | -0.0268456 | 0.0729971 | 0.0086601 | -0.8306029 | 2.2246529 | 2.2246529 |
| 41 | 39:15.9 | 574232 | 6.35303E+12 | 5.47061E+13 | 5346.06 | 0.0002799 | -0.0273812 | 0.0729435 | 0.0086601 | -0.8471743 | 2.2230187 | 2.2230187 |
| 42 | 44:19.1 | 574232 | 6.35303E+12 | 5.47061E+13 | 5350.69 | 0.0002799 | -0.0274119 | 0.0730067 | 0.0086601 | -0.8481242 | 2.224944 | 2.224944 |
| 43 | 49:22.3 | 574232 | 6.35303E+12 | 5.47061E+13 | 5361.36 | 0.0002799 | -0.0288527 | 0.0731523 | 0.0086601 | -0.8927025 | 2.2293808 | 2.2293808 |
| 44 | 54:25.5 | 574232 | 6.35303E+12 | 5.47061E+13 | 5358.36 | 0.0002799 | -0.0281218 | 0.0731113 | 0.0086601 | -0.8700885 | 2.2281334 | 2.2281334 |
| 45 | 59:28.2 | 574232 | 6.35303E+12 | 5.47061E+13 | 5366.19 | 0.0002799 | -0.0262745 | 0.0732182 | 0.0086601 | -0.812933 | 2.2313893 | 2.2313893 |
| 46 | 04:31.6 | 574233 | 6.35303E+12 | 5.35475E+13 | 5377.4 | 0.0028119 | -0.026271 | 0.0749586 | 0.0870002 | -0.8128247 | 2.2844298 | 2.2844298 |
| 47 | 09:34.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5358.81 | 0.0028119 | -0.0028349 | 0.0746994 | 0.0870002 | -0.0877118 | 2.2765324 | 2.2765324 |
| 48 | 14:37.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5359.15 | 0.0028119 | -0.0008362 | 0.0747042 | 0.0870002 | -0.025872 | 2.2766768 | 2.2766768 |
| 49 | 19:40.5 | 574233 | 6.35303E+12 | 5.35475E+13 | 5359.66 | 0.0028119 | -0.018256 | 0.0747113 | 0.0870002 | -0.5648406 | 2.2768935 | 2.2768935 |
| 50 | 24:43.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5358.18 | 0.0028119 | -0.0019335 | 0.075233 | 0.0870002 | -0.0598225 | 2.2927926 | 2.2927926 |
| 51 | 29:46.4 | 574234 | 6.35303E+12 | 5.31615E+13 | 5351.99 | 0.0028119 | -0.0146695 | 0.0751461 | 0.0870002 | -0.4535649 | 2.2901439 | 2.2901439 |
| 52 | 34:49.2 | 574234 | 6.35303E+12 | 5.31615E+13 | 5344.84 | 0.0028119 | -0.0033057 | 0.0750457 | 0.0870002 | -0.1022784 | 2.2870844 | 2.2870844 |
| 53 | 39:52.4 | 574236 | 6.35303E+12 | 5.29706E+13 | 5349.94 | 0.0028119 | -0.0160658 | 0.075388 | 0.0870002 | -0.4970759 | 2.2975179 | 2.2975179 |
| 54 | 44:55.4 | 574237 | 6.35303E+12 | 5.26741E+13 | 5348.56 | 0.0028119 | -0.0313865 | 0.0757929 | 0.0870002 | -0.9710983 | 2.3098563 | 2.3098563 |
| 55 | 49:58.5 | 574238 | 6.35303E+12 | 5.2719E+13 | 5353.94 | 0.0028119 | -0.0300483 | 0.0758044 | 0.0870002 | -0.9296944 | 2.3102083 | 2.3102083 |
| 56 | 55:01.6 | 574238 | 6.35303E+12 | 5.2719E+13 | 5351.76 | 0.0028119 | -0.0054625 | 0.0757736 | 0.0870002 | -0.1690098 | 2.3092677 | 2.3092677 |
| 57 | 00:04.5 | 574239 | 6.35303E+12 | 5.28168E+13 | 5350.18 | 0.0122894 | -0.0015936 | 0.0756109 | 0.380234 | -0.049306 | 2.3043114 | 2.3043114 |
| 58 | 10:10.2 | 574240 | 6.35303E+12 | 5.25658E+13 | 5348.27 | 0.0122894 | -0.0303162 | 0.0759448 | 0.380234 | -0.9379832 | 2.314487 | 2.314487 |
| 59 | 15:13.1 | 574243 | 6.35303E+12 | 5.35108E+13 | 5354.34 | 0.0122894 | 4.40E-06 | 0.0746884 | 0.380234 | 0.0001361 | 2.2761958 | 2.2761958 |
| 60 | 20:15.8 | 574245 | 6.35303E+12 | 5.38531E+13 | 5358.41 | 0.0122894 | 0.0009337 | 0.07427 | 0.380234 | 0.0288887 | 2.2634449 | 2.2634449 |
| 61 | 25:18.5 | 574245 | 6.35303E+12 | 5.38531E+13 | 5356.02 | 0.0122894 | -0.0033181 | 0.0742369 | 0.380234 | -0.102662 | 2.2624353 | 2.2624353 |
| 62 | 30:21.5 | 574246 | 6.35303E+12 | 5.41667E+13 | 5359.34 | 0.0122894 | -0.0013696 | 0.0738528 | 0.380234 | -0.0423754 | 2.2507317 | 2.2507317 |
| 63 | 35:24.4 | 574246 | 6.35303E+12 | 5.41667E+13 | 5361.98 | 0.0122894 | 0.0048181 | 0.0738892 | 0.380234 | 0.149072 | 2.2518404 | 2.2518404 |
| 64 | 40:27.4 | 574246 | 6.35303E+12 | 5.41667E+13 | 5366.6 | 0.0122894 | -0.0154488 | 0.0739529 | 0.380234 | -0.4779859 | 2.2537807 | 2.2537807 |
| 65 | 45:30.2 | 574248 | 6.35303E+12 | 5.41479E+13 | 5365.93 | 0.0122894 | -0.001393 | 0.0739693 | 0.380234 | -0.0430994 | 2.2542821 | 2.2542821 |
| 66 | 50:33.1 | 574251 | 6.35303E+12 | 5.52479E+13 | 5359.19 | 0.0122894 | 0.0017926 | 0.0724055 | 0.380234 | 0.055463 | 2.2066234 | 2.2066234 |
| 67 | 55:36.2 | 574251 | 6.35303E+12 | 5.52479E+13 | 5356.1 | 0.0122894 | 0.0017688 | 0.0723638 | 0.380234 | 0.0547267 | 2.2053511 | 2.2053511 |
| 68 | 00:39.1 | 574252 | 6.35303E+12 | 5.50584E+13 | 5358.27 | 0.0171137 | 0.005096 | 0.0726423 | 0.5294979 | 0.1576702 | 2.2138386 | 2.2138386 |
| 69 | 05:43.7 | 574252 | 6.35303E+12 | 5.50584E+13 | 5360.85 | 0.0171137 | 0.1588863 | 0.0726772 | 0.5294979 | 4.9159421 | 2.2149045 | 4.9159421 |
| 70 | 10:47.0 | 574253 | 6.35303E+12 | 5.55506E+13 | 5361.66 | 0.0171137 | 0.0136055 | 0.0720441 | 0.5294979 | 0.420 | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 96 | 37:15.7 | 574273 | 6.35303E+12 | 5.53104E+13 | 5353.7 | 0.0191744 | 0.0084743 | 0.0722496 | 0.5932559 | 0.2621948 | 2.2018709 | 2.2018709 |
| 97 | 42:19.1 | 574273 | 6.35303E+12 | 5.53104E+13 | 5354.2 | 0.0191744 | 0.0105116 | 0.0722563 | 0.5932559 | 0.3252289 | 2.2020766 | 2.2020766 |
| 98 | 47:22.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5354.14 | 0.0191744 | 0.0118583 | 0.0722116 | 0.5932559 | 0.3668958 | 2.2007128 | 2.2007128 |
| 99 | 52:25.1 | 574274 | 6.35303E+12 | 5.53441E+13 | 5355.15 | 0.0191744 | 0.0169972 | 0.0722252 | 0.5932559 | 0.5258934 | 2.2011279 | 2.2011279 |
| 100 | 57:28.6 | 574274 | 6.35303E+12 | 5.53441E+13 | 5366.51 | 0.0191744 | 0.0145957 | 0.0723784 | 0.5932559 | 0.451591 | 2.2057972 | 2.2057972 |
| 101 | 02:31.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5367.34 | 0.0216519 | 0.009775 | 0.0723896 | 0.6699098 | 0.3024385 | 2.2061384 | 2.2061384 |
| 102 | 07:34.9 | 574274 | 6.35303E+12 | 5.53441E+13 | 5369.11 | 0.0216519 | 0.0089501 | 0.0724135 | 0.6699098 | 0.2769161 | 2.2068659 | 2.2068659 |
| 103 | 12:38.4 | 574274 | 6.35303E+12 | 5.53441E+13 | 5361.12 | 0.0216519 | 0.0155345 | 0.0723057 | 0.6699098 | 0.4806374 | 2.2035818 | 2.2035818 |
| 104 | 17:41.3 | 574274 | 6.35303E+12 | 5.53441E+13 | 5366.11 | 0.0216519 | 0.0159714 | 0.072373 | 0.6699098 | 0.4941551 | 2.2056328 | 2.2056328 |
| 105 | 22:44.6 | 574275 | 6.35303E+12 | 5.36343E+13 | 5369.98 | 0.0216519 | 0.015976 | 0.0747339 | 0.6699098 | 0.4942974 | 2.2775843 | 2.2775843 |
| 106 | 27:47.5 | 574275 | 6.35303E+12 | 5.36343E+13 | 5368.01 | 0.0216519 | 0.0157924 | 0.0747065 | 0.6699098 | 0.4886169 | 2.2767487 | 2.2767487 |
| 107 | 32:50.5 | 574277 | 6.35303E+12 | 5.50501E+13 | 5373.94 | 0.0216519 | 0.0199778 | 0.0728657 | 0.6699098 | 0.6181131 | 2.2206488 | 2.2206488 |
| 108 | 37:53.4 | 574279 | 6.35303E+12 | 5.54528E+13 | 5377.71 | 0.0216519 | 0.019191 | 0.0723873 | 0.6699098 | 0.5937695 | 2.2060669 | 2.2060669 |
| 109 | 42:56.1 | 574281 | 6.35303E+12 | 5.67946E+13 | 5384.52 | 0.0216519 | 0.0172445 | 0.0707666 | 0.6699098 | 0.5335448 | 2.1566766 | 2.1566766 |
| 110 | 47:59.0 | 574281 | 6.35303E+12 | 5.67946E+13 | 5380.73 | 0.0216519 | 0.0171053 | 0.0707168 | 0.6699098 | 0.529238 | 2.1551586 | 2.1551586 |
| 111 | 53:02.0 | 574282 | 6.35303E+12 | 5.6096E+13 | 5375.54 | 0.0216519 | 0.0134277 | 0.0715284 | 0.6699098 | 0.415453 | 2.1798939 | 2.1798939 |
| 112 | 58:05.2 | 574282 | 6.35303E+12 | 5.6096E+13 | 5378.27 | 0.0216519 | 0.018 | 0.0715648 | 0.6699098 | 0.55692 | 2.1810009 | 2.1810009 |
| 113 | 03:08.4 | 574283 | 6.35303E+12 | 5.56063E+13 | 5389.1 | 0.0235997 | 0.0178977 | 0.0723403 | 0.7301747 | 0.5537548 | 2.2046367 | 2.2046367 |
| 114 | 08:11.8 | 574283 | 6.35303E+12 | 5.56063E+13 | 5401.6 | 0.0235997 | 0.0199519 | 0.0725081 | 0.7301747 | 0.6173118 | 2.2097504 | 2.2097504 |
| 115 | 13:14.8 | 574283 | 6.35303E+12 | 5.56063E+13 | 5411.61 | 0.0235997 | 0.0198174 | 0.0726425 | 0.7301747 | 0.6131504 | 2.2138454 | 2.2138454 |
| 116 | 18:18.7 | 574284 | 6.35303E+12 | 5.64188E+13 | 5399.02 | 0.0235997 | 0.0211285 | 0.0714298 | 0.7301747 | 0.6537158 | 2.1768876 | 2.1768876 |
| 117 | 23:21.6 | 574284 | 6.35303E+12 | 5.64188E+13 | 5401.6 | 0.0235997 | 0.0206955 | 0.0714639 | 0.7301747 | 0.6403188 | 2.1779279 | 2.1779279 |
| 118 | 28:24.6 | 574284 | 6.35303E+12 | 5.64188E+13 | 5405.99 | 0.0235997 | 0.0201906 | 0.071522 | 0.7301747 | 0.6246972 | 2.1796979 | 2.1796979 |
| 119 | 38:30.0 | 574285 | 6.35303E+12 | 5.57835E+13 | 5401.12 | 0.0235997 | 0.0196938 | 0.0722714 | 0.7301747 | 0.6093262 | 2.2025372 | 2.2025372 |
| 120 | 43:33.2 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.01 | 0.0235997 | 0.0205017 | 0.0723101 | 0.7301747 | 0.6343226 | 2.2037157 | 2.2037157 |
| 121 | 48:36.5 | 574285 | 6.35303E+12 | 5.57835E+13 | 5404.26 | 0.0235997 | 0.0202344 | 0.0723135 | 0.7301747 | 0.6260523 | 2.2038176 | 2.2038176 |
| 122 | 53:39.7 | 574285 | 6.35303E+12 | 5.57835E+13 | 5400.01 | 0.0235997 | 0.0204794 | 0.0722566 | 0.7301747 | 0.6363263 | 2.2020845 | 2.2020845 |
| 123 | 58:42.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.56 | 0.0235997 | 0.0204578 | 0.0723309 | 0.7301747 | 0.6329643 | 2.2043478 | 2.2043478 |
| 124 | 03:45.8 | 574285 | 6.35303E+12 | 5.57835E+13 | 5405.7 | 0.0246624 | 0.0205258 | 0.0723327 | 0.7630547 | 0.6350683 | 2.2044049 | 2.2044049 |
| 125 | 08:49.5 | 574286 | 6.35303E+12 | 5.36818E+13 | 5416.95 | 0.0246624 | 0.0206883 | 0.0753209 | 0.7630547 | 0.640096 | 2.2954736 | 2.2954736 |
| 126 | 13:52.4 | 574287 | 6.35303E+12 | 5.50908E+13 | 5405.74 | 0.0246624 | 0.0206454 | 0.0732427 | 0.7630547 | 0.6387687 | 2.232137 | 2.232137 |
| 127 | 18:56.1 | 574287 | 6.35303E+12 | 5.50908E+13 | 5394.62 | 0.0246624 | 0.0206499 | 0.073092 | 0.7630547 | 0.6389079 | 2.2275453 | 2.2275453 |
| 128 | 23:59.2 | 574288 | 6.35303E+12 | 5.6446E+13 | 5372.85 | 0.0246624 | 0.0206922 | 0.0710493 | 0.7630547 | 0.6402167 | 2.1652907 | 2.1652907 |
| 129 | 29:02.2 | 574288 | 6.35303E+12 | 5.6446E+13 | 5385.99 | 0.0246624 | 0.0206955 | 0.071223 | 0.7630547 | 0.6403188 | 2.1705862 | 2.1705862 |
| 130 | 34:05.7 | 574289 | 6.35303E+12 | 5.61643E+13 | 5382.78 | 0.0246624 | 0.0217427 | 0.0715377 | 0.7630547 | 0.6727191 | 2.1801747 | 2.1801747 |
| 131 | 39:08.7 | 574289 | 6.35303E+12 | 5.61643E+13 | 5380.01 | 0.0246624 | 0.0218238 | 0.0715009 | 0.7630547 | 0.6752284 | 2.1790528 | 2.1790528 |
| 132 | 44:11.8 | 574289 | 6.35303E+12 | 5.61643E+13 | 5375.01 | 0.0246624 | 0.0212482 | 0.0714344 | 0.7630547 | 0.6574193 | 2.1770277 | 2.1770277 |
| 133 | 54:17.2 | 574292 | 6.35303E+12 | 5.59818E+13 | 5380.19 | 0.0246624 | 0.0211736 | 0.0717363 | 0.7630547 | 0.678047 | 2.1862275 | 2.1862275 |
| 134 | 59:20.2 | 574293 | 6.35303E+12 | 5.63654E+13 | 5377.35 | 0.0246624 | 0.021873 | 0.0712105 | 0.7630547 | 0.6767506 | 2.1702049 | 2.1702049 |
| 135 | 04:23.7 | 574294 | 6.35303E+12 | 5.66874E+13 | 5388.44 | 0.0258801 | 0.0213278 | 0.070952 | 0.8007303 | 0.6598821 | 2.1623271 | 2.1623271 |
| 136 | 09:26.5 | 574295 | 6.35303E+12 | 5.71185E+13 | 5388.44 | 0.0258801 | 0.0212527 | 0.0704165 | 0.8007303 | 0.6660454 | 2.1460054 | 2.1460054 |
| 137 | 14:29.9 | 574298 | 6.35303E+12 | 5.77593E+13 | 5389.19 | 0.0258801 | 0.0216842 | 0.0696449 | 0.8007303 | 0.6709091 | 2.122492 | 2.122492 |
| 138 | 19:32.9 | 574298 | 6.35303E+12 | 5.77593E+13 | 5388.39 | 0.0258801 | 0.0214643 | 0.0696346 | 0.8007303 | 0.7444566 | 2.122177 | 2.122177 |
| 139 | 24:35.8 | 574298 | 6.35303E+12 | 5.77593E+13 | 5391.23 | 0.0258801 | 0.0222895 | 0.0696713 | 0.8007303 | 0.6896371 | 2.1232955 | 2.1232955 |
| 140 | 29:38.9 | 574298 | 6.35303E+12 | 5.77593E+13 | 5399.68 | 0.0258801 | 0.0257402 | 0.0697805 | 0.8007303 | 0.7964018 | 2.1266234 | 2.1266234 |
| 141 | 34:42.6 | 574300 | 6.35303E+12 | 5.74492E+13 | 5391.27 | 0.0258801 | 0.0264737 | 0.0700479 | 0.8007303 | 0.8190963 | 2.1347724 | 2.1347724 |
| 142 | 39:47.4 | 574301 | 6.35303E+12 | 5.7613E+13 | 5390.99 | 0.0258801 | 0.0248568 | 0.0698452 | 0.8007303 | 2.6165525 | 2.1285942 | 2.1615525 |
| 143 | 44:51.4 | 574302 | 6.35303E+12 | 5.77583E+13 | 5394.15 | 0.0258801 | 0.0220877 | 0.0697103 | 0.8007303 | 0.8337395 | 2.124483 | 2.124483 |
| 144 | 49:55.5 | 574302 | 6.35303E+12 | 5.77583E+13 | 5395.41 | 0.0258801 | 0.0156937 | 0.0697265 | 0.8007303 | 0.8557143 | 2.1249792 | 2.1249792 |
| 145 | 55:00.3 | 574304 | 6.35303E+12 | 5.7411E+13 | 5395.02 | 0.0258801 | 0.0185686 | 0.0701433 | 0.8007303 | 0.85249125 | 2.1376815 | 2.1376815 |
| 146 | 05:07.6 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.61 | 0.0282381 | 0.02199419 | 0.0688537 | 0.8736868 | 6.8050024 | 2.0983778 | 6.8050024 |
| 147 | 10:10.7 | 574305 | 6.35303E+12 | 5.8471E+13 | 5393.59 | 0.0282381 | 0.0379328 | 0.0688534 | 0.8736868 | 1.1736408 | 2.09837 | 2.09837 |
| 148 | 15:13.9 | 574307 | 6.35303E+12 | 5.89967E+13 | 5393.1 | 0.0282381 | 0.0286257 | 0.0683237 | 0.8736868 | 0.8745408 | 2.0794831 | 2.0794831 |
| 149 | 20:16.9 | 574309 | 6.35303E+12 | 6.00748E+13 | 5397.01 | 0.0282381 | 0.0260977 | 0.0670578 | 0.8736868 | 0.8074628 | 2.0436461 | 2.0436461 |
| 150 | 25:20.0 | 574309 | 6.35303E+12 | 6.00748E+13 | 5396.19 | 0.0282381 | 0.0259319 | 0.0670476 | 0.8736868 | 0.802333 | 2.0433356 | 2.0433356 |
| 151 | 30:22.8 | 574310 | 6.35303E+12 | 6.02983E+13 | 5397.48 | 0.0282381 | 0.030206 | 0.0668151 | 0.8736868 | 0.9345736 | 2.0362495 | 2.0362495 |
| 152 | 35:25.7 | 574311 | 6.35303E+12 | 6.01255E+13 | 5402.84 | 0.0282381 | 0.0302009 | 0.0670736 | 0.8736868 | 0.9344158 | 2.044127 | 2.044127 |
| 153 | 40:29.7 | 574312 | 6.35303E+12 | 5.99055E+13 | 5397.41 | 0.0282381 | 0.0302509 | 0.0672522 | 0.8736868 | 0.9359628 | 2.0495721 | 2.0495721 |
| 154 | 45:32.5 | 574312 | 6.35303E+12 | 5.99055E+13 | 5395.01 | 0.0282381 | 0.0260271 | 0.0672223 | 0.8736868 | 0.8052785 | 2.0486608 | 2.0486608 |
| 155 | 55:37.6 | 574315 | 6.35303E+12 | 5.97623E+13 | 5391.82 | 0.0282381 | 0.0262949 | 0.0673436 | 0.8736868 | 0.8135642 | 2.0523565 | 2.0523565 |
| 156 | 00:42.0 | 574315 | 6.35303E+12 | 5.97623E+13 | 5387.9 | 0.0299687 | 0.2138963 | 0.0672946 | 0.9272316 | 6.6179515 | 2.0508644 | 6.6179515 |
| 157 | 05:45.0 | 574317 | 6.35303E+12 | 6.04051E+13 | 5388.49 | 0.0299687 | 0.0275245 | 0.0665859 | 0.9272316 | 0.851608 | 2.0292641 | 2.0292641 |
| 158 | 10:49.5 | 574319 | 6.35303E+12 | 6.0775E+13 | 5387.98 | 0.0299687 | 0.0273972 | 0.0661742 | 0.9272316 | 7.0356694 | 2.0167195 | 7.0356694 |
| 159 | 15:52.2 | 574320 | 6.35303E+12 | 6.21737E+13 | 5393.73 | 0.0299687 | 0.0493605 | 0.0647546 | 0.9272316 | 1.5272139 | 1.9734558 | 1.9734558 |
| 160 | 20:54.9 | 574320 | 6.35303E+12 | 6.21737E+13 | 5399.05 | 0.0299687 | 0.0375331 | 0.0648185 | 0.9272316 | 1.1612741 | 1.9754023 | 1.9754023 |
| 161 | 25:57.6 | 574320 | 6.35303E+12 | 6.21737E+13 | 5405.74 | 0.0299687 | 0.0307695 | 0.0648988 | 0.9272316 | 0.9520083 | 1.97785 | 1.97785 |
| 162 | 31:00.3 | 574321 | 6.35303E+12 | 6.17749E+13 | 5405.41 | 0.0299687 | 0.0283888 | 0.0653138 | 0.9272316 | 0.8783495 | 1.9904973 | 1.9904973 |
| 163 | 36:03.1 | 574321 | 6.35303E+12 | 6.17749E+13 | 5401.85 | 0.0299687 | 0.0282614 | 0.0652708 | 0.9272316 | 0.8744077 | 1.9891864 | 1.9891864 |
| 164 | 41:06.0 | 574321 | 6.35303E+12 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 190 | 52:22.9 | 574333 | 6.35303E+12 | 5.9734E+13 | 5406.27 | 0.0303255 | 0.0270923 | 0.0675561 | 0.938271 | 0.8382358 | 0.2588333 | 0.2588333 |
| 191 | 57:25.6 | 574333 | 6.35303E+12 | 5.9734E+13 | 5401.15 | 0.0303255 | 0.0273697 | 0.0674921 | 0.938271 | 0.8468185 | 0.2568835 | 0.2568835 |
| 192 | 02:28.6 | 574334 | 6.35303E+12 | 5.92562E+13 | 5400.02 | 0.0291501 | 0.028349 | 0.0680221 | 0.9019041 | 0.8771181 | 0.2730351 | 0.2730351 |
| 193 | 07:32.0 | 574335 | 6.35303E+12 | 5.9018E+13 | 5400.05 | 0.0291501 | 0.0271441 | 0.0682991 | 0.9019041 | 0.8398385 | 0.2814126 | 0.2814126 |
| 194 | 12:35.2 | 574337 | 6.35303E+12 | 6.04407E+13 | 5403.81 | 0.0291501 | 0.0271795 | 0.0667358 | 0.9019041 | 0.8409337 | 0.2383321 | 0.2383321 |
| 195 | 17:38.0 | 574338 | 6.35303E+12 | 6.00814E+13 | 5403.9 | 0.0291501 | 0.0269433 | 0.067136 | 0.9019041 | 0.8336257 | 0.2460298 | 0.2460298 |
| 196 | 22:41.3 | 574340 | 6.35303E+12 | 6.01388E+13 | 5404.53 | 0.0291501 | 0.0265047 | 0.0670798 | 0.9019041 | 0.8200554 | 0.2443159 | 0.2443159 |
| 197 | 27:44.1 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.01 | 0.0291501 | 0.0269789 | 0.0667051 | 0.9019041 | 0.8347272 | 0.2328944 | 0.2328944 |
| 198 | 32:47.4 | 574342 | 6.35303E+12 | 6.0482E+13 | 5405.02 | 0.0291501 | 0.0259921 | 0.0667051 | 0.9019041 | 0.8041956 | 0.2328982 | 0.2328982 |
| 199 | 37:50.1 | 574343 | 6.35303E+12 | 5.99395E+13 | 5399.97 | 0.0291501 | 0.0266251 | 0.067246 | 0.9019041 | 0.8237806 | 0.2493813 | 0.2493813 |
| 200 | 42:52.9 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.0291501 | 0.0264856 | 0.0676328 | 0.9019041 | 0.8194645 | 0.2611697 | 0.2611697 |
| 201 | 47:55.6 | 574344 | 6.35303E+12 | 5.95861E+13 | 5399.01 | 0.0291501 | 0.027138 | 0.0676328 | 0.9019041 | 0.8396497 | 0.2611697 | 0.2611697 |
| 202 | 52:58.5 | 574344 | 6.35303E+12 | 5.95861E+13 | 5394.86 | 0.0291501 | 0.0264887 | 0.0675808 | 0.9019041 | 0.8195604 | 0.2595854 | 0.2595854 |
| 203 | 58:01.6 | 574344 | 6.35303E+12 | 5.95861E+13 | 5398.35 | 0.0291501 | 0.0266866 | 0.0676245 | 0.9019041 | 0.8256834 | 0.2609177 | 0.2609177 |
| 204 | 03:05.6 | 574346 | 6.35303E+12 | 5.84022E+13 | 5395.14 | 0.0282198 | 0.227266 | 0.0689544 | 0.8731206 | 7.03161 | 2.1014468 | 7.03161 |
| 205 | 08:09.0 | 574347 | 6.35303E+12 | 5.86008E+13 | 5392.22 | 0.0282198 | 0.026838 | 0.0686835 | 0.8731206 | 0.8317848 | 0.2931918 | 0.2931918 |
| 206 | 13:12.1 | 574347 | 6.35303E+12 | 5.86008E+13 | 5397.01 | 0.0282198 | 0.0269587 | 0.0687445 | 0.8731206 | 0.8341022 | 0.2905012 | 0.2905012 |
| 207 | 18:15.1 | 574348 | 6.35303E+12 | 5.87322E+13 | 5398.6 | 0.0282198 | 0.02711 | 0.0686109 | 0.8731206 | 0.8387834 | 0.2909802 | 0.2909802 |
| 208 | 23:18.2 | 574348 | 6.35303E+12 | 5.87322E+13 | 5396.18 | 0.0282198 | 0.0268066 | 0.0685802 | 0.8731206 | 0.8293962 | 0.2900429 | 0.2900429 |
| 209 | 28:22.4 | 574349 | 6.35303E+12 | 5.84595E+13 | 5396.23 | 0.0282198 | 0.2263651 | 0.0689007 | 0.8731206 | 7.0037486 | 0.2998095 | 7.0037486 |
| 210 | 33:25.3 | 574349 | 6.35303E+12 | 5.84595E+13 | 5395.06 | 0.0282198 | 0.0366701 | 0.0688857 | 0.8731206 | 1.1345729 | 0.2993542 | 0.2993542 |
| 211 | 38:28.1 | 574350 | 6.35303E+12 | 5.91267E+13 | 5395.03 | 0.0282198 | 0.0272366 | 0.0681081 | 0.8731206 | 0.8427004 | 0.2756546 | 0.2756546 |
| 212 | 43:31.1 | 574351 | 6.35303E+12 | 5.92508E+13 | 5395.02 | 0.0282198 | 0.0249648 | 0.0679653 | 0.8731206 | 0.7724109 | 0.271303 | 0.271303 |
| 213 | 48:33.9 | 574351 | 6.35303E+12 | 5.92508E+13 | 5394.15 | 0.0282198 | 0.025678 | 0.0679543 | 0.8731206 | 0.7944773 | 0.270969 | 0.270969 |
| 214 | 53:36.6 | 574351 | 6.35303E+12 | 5.92508E+13 | 5390.52 | 0.0282198 | 0.0248895 | 0.0679086 | 0.8731206 | 0.7700811 | 0.2695753 | 0.2695753 |
| 215 | 58:39.4 | 574351 | 6.35303E+12 | 5.92508E+13 | 5391.4 | 0.0282198 | 0.0251117 | 0.0679197 | 0.8731206 | 0.776956 | 0.2699132 | 0.2699132 |
| 216 | 03:42.2 | 574351 | 6.35303E+12 | 5.92508E+13 | 5383.02 | 0.0294796 | 0.0251798 | 0.0678141 | 0.9120988 | 0.779063 | 0.2666958 | 0.2666958 |
| 217 | 08:45.1 | 574351 | 6.35303E+12 | 5.92508E+13 | 5371.99 | 0.0294796 | 0.022656 | 0.0676752 | 0.9120988 | 0.7012737 | 0.2624611 | 0.2624611 |
| 218 | 13:48.0 | 574351 | 6.35303E+12 | 5.92508E+13 | 5376.84 | 0.0294796 | 0.0227334 | 0.0677362 | 0.9120988 | 0.7033714 | 0.2643232 | 0.2643232 |
| 219 | 18:50.8 | 574353 | 6.35303E+12 | 5.95341E+13 | 5372.72 | 0.0294796 | 0.024306 | 0.0673622 | 0.9120988 | 0.7532838 | 0.2529247 | 0.2529247 |
| 220 | 23:53.6 | 574353 | 6.35303E+12 | 5.95341E+13 | 5379.06 | 0.0294796 | 0.023035 | 0.0674417 | 0.9120988 | 0.7127029 | 0.2553472 | 0.2553472 |
| 221 | 28:56.9 | 574353 | 6.35303E+12 | 5.95341E+13 | 5386.27 | 0.0294796 | 0.0249424 | 0.0675321 | 0.9120988 | 0.7717179 | 0.2581021 | 0.2581021 |
| 222 | 33:59.8 | 574353 | 6.35303E+12 | 5.95341E+13 | 5393.51 | 0.0294796 | 0.0253684 | 0.0676229 | 0.9120988 | 0.7848983 | 0.2608686 | 0.2608686 |
| 223 | 39:02.6 | 574353 | 6.35303E+12 | 5.95341E+13 | 5397.98 | 0.0294796 | 0.0253102 | 0.0676789 | 0.9120988 | 0.7830976 | 0.2625766 | 0.2625766 |
| 224 | 44:05.8 | 574354 | 6.35303E+12 | 5.92005E+13 | 5401.73 | 0.0294796 | 0.0249924 | 0.0681077 | 0.9120988 | 0.7732649 | 0.2756429 | 0.2756429 |
| 225 | 49:09.4 | 574356 | 6.35303E+12 | 6.01278E+13 | 5395.44 | 0.0294796 | 0.0234267 | 0.0669792 | 0.9120988 | 0.7248221 | 0.2412523 | 0.2412523 |
| 226 | 54:12.7 | 574356 | 6.35303E+12 | 6.01278E+13 | 5400.19 | 0.0294796 | 0.0248989 | 0.0670382 | 0.9120988 | 0.770372 | 0.2430494 | 0.2430494 |
| 227 | 59:15.5 | 574357 | 6.35303E+12 | 5.98782E+13 | 5407.34 | 0.0294796 | 0.0220481 | 0.0674068 | 0.9120988 | 0.6821682 | 0.254282 | 0.254282 |
| 228 | 04:18.3 | 574357 | 6.35303E+12 | 5.98782E+13 | 5412.65 | 0.0358902 | 0.0218857 | 0.067473 | 1.1104428 | 0.6771436 | 0.2562993 | 0.2562993 |
| 229 | 09:22.0 | 574358 | 6.35303E+12 | 5.94067E+13 | 5412.99 | 0.0358902 | 0.0216716 | 0.0680127 | 1.1104428 | 0.6705193 | 0.2727494 | 0.2727494 |
| 230 | 14:25.2 | 574359 | 6.35303E+12 | 5.99023E+13 | 5410.59 | 0.0358902 | 0.0219037 | 0.0674202 | 1.1104428 | 0.6777005 | 0.2546898 | 0.2546898 |
| 231 | 19:28.2 | 574360 | 6.35303E+12 | 6.0023E+13 | 5412.47 | 0.0358902 | 0.0219939 | 0.0673079 | 1.1104428 | 0.6804913 | 0.2512675 | 0.2512675 |
| 232 | 24:32.0 | 574360 | 6.35303E+12 | 6.0023E+13 | 5404.27 | 0.0358902 | 0.0228282 | 0.0672059 | 1.1104428 | 0.7063045 | 0.2481598 | 0.2481598 |
| 233 | 29:35.3 | 574361 | 6.35303E+12 | 5.95038E+13 | 5406.99 | 0.0358902 | 0.0225739 | 0.0678264 | 1.1104428 | 0.6984365 | 0.2670711 | 0.2670711 |
| 234 | 34:38.6 | 574361 | 6.35303E+12 | 5.95038E+13 | 5410.01 | 0.0358902 | 0.0245993 | 0.0678643 | 1.1104428 | 0.7611023 | 0.2682256 | 0.2682256 |
| 235 | 39:41.7 | 574361 | 6.35303E+12 | 5.95038E+13 | 5424.76 | 0.0358902 | 0.0359936 | 0.0680493 | 1.1104428 | 1.113642 | 0.2738645 | 0.2738645 |
| 236 | 44:44.7 | 574362 | 6.35303E+12 | 5.87448E+13 | 5432.99 | 0.0358902 | 0.0239225 | 0.0690331 | 1.1104428 | 0.7401622 | 0.21038472 | 0.21038472 |
| 237 | 49:48.5 | 574362 | 6.35303E+12 | 5.87448E+13 | 5431.52 | 0.0358902 | 0.0225293 | 0.0690145 | 1.1104428 | 0.6970565 | 0.2103278 | 0.2103278 |
| 238 | 54:51.9 | 574363 | 6.35303E+12 | 5.80502E+13 | 5426.35 | 0.0358902 | 0.0241253 | 0.0697738 | 1.1104428 | 0.7464368 | 0.2162408 | 0.2162408 |
| 239 | 59:55.2 | 574363 | 6.35303E+12 | 5.80502E+13 | 5426.04 | 0.0358902 | 0.0268214 | 0.0697699 | 1.1104428 | 1.0111935 | 0.21262994 | 0.21262994 |
| 240 | 04:57.9 | 574364 | 6.35303E+12 | 5.78645E+13 | 5431.65 | 0.0269835 | 0.0482413 | 0.0700661 | 0.8348695 | 1.4925858 | 0.21353278 | 0.21353278 |
| 241 | 10:00.7 | 574364 | 6.35303E+12 | 5.78645E+13 | 5442.45 | 0.0269835 | 0.043395 | 0.0702054 | 0.8348695 | 1.3426413 | 0.21395736 | 0.21395736 |
| 242 | 15:04.3 | 574366 | 6.35303E+12 | 5.7531E+13 | 5432.6 | 0.0269835 | 0.0243861 | 0.0704846 | 0.8348695 | 1.7545059 | 0.21480807 | 0.21480807 |
| 243 | 20:07.3 | 574367 | 6.35303E+12 | 5.84533E+13 | 5443.24 | 0.0269835 | 0.0247503 | 0.0695083 | 0.8348695 | 0.7657743 | 0.21183292 | 0.21183292 |
| 244 | 25:11.1 | 574368 | 6.35303E+12 | 5.81378E+13 | 5430.99 | 0.0269835 | 0.0232327 | 0.0697283 | 0.8348695 | 0.7185722 | 0.2125032 | 0.2125032 |
| 245 | 30:14.0 | 574368 | 6.35303E+12 | 5.81378E+13 | 5447.49 | 0.0269835 | 0.0215208 | 0.0699401 | 0.8348695 | 0.6658536 | 0.21314881 | 0.21314881 |
| 246 | 35:16.8 | 574369 | 6.35303E+12 | 5.7527E+13 | 5441.28 | 0.0269835 | 0.0212082 | 0.0706021 | 0.8348695 | 0.6561817 | 0.2151664 | 0.2151664 |
| 247 | 40:20.2 | 574369 | 6.35303E+12 | 5.7527E+13 | 5444.99 | 0.0269835 | 0.0200685 | 0.0706503 | 0.8348695 | 0.6209194 | 0.2153131 | 0.2153131 |
| 248 | 45:23.2 | 574370 | 6.35303E+12 | 5.73316E+13 | 5445.99 | 0.0269835 | 0.0200685 | 0.0709041 | 0.8348695 | 0.6209194 | 0.21608665 | 0.21608665 |
| 249 | 50:26.3 | 574370 | 6.35303E+12 | 5.73316E+13 | 5466.65 | 0.0269835 | 0.0196295 | 0.0711731 | 0.8348695 | 0.6073367 | 0.2169064 | 0.2169064 |
| 250 | 55:29.5 | 574372 | 6.35303E+12 | 5.7029E+13 | 5473.18 | 0.0269835 | 0.0196295 | 0.0716362 | 0.8348695 | 0.6073367 | 0.21831762 | 0.21831762 |
| 251 | 00:32.6 | 574373 | 6.35303E+12 | 5.75391E+13 | 5470.2 | 0.0280848 | 0.0195841 | 0.0709624 | 0.6437005 | 0.6059321 | 0.21626439 | 0.21626439 |
| 252 | 05:35.5 | 574373 | 6.35303E+12 | 5.75391E+13 | 5471.01 | 0.0280848 | 0.0193404 | 0.0709729 | 0.6437005 | 0.598392 | 0.21629641 | 0.21629641 |
| 253 | 10:38.5 | 574374 | 6.35303E+12 | 5.70787E+13 | 5461.19 | 0.0280848 | 0.0197241 | 0.071417 | 0.6437005 | 0.6102637 | 0.21764965 | 0.21764965 |
| 254 | 15:41.4 | 574374 | 6.35303E+12 | 5.70787E+13 | 5460.95 | 0.0280848 | 0.019458 | 0.0714138 | 0.6437005 | 0.6020305 | 0.21764008 | 0.21764008 |
| 255 | 20:44.2 | 574376 | 6.35303E+12 | 5.68162E+13 | 5461.87 | 0.0280848 | 0.0214581 | 0.0717558 | 0.6437005 | 0.6639136 | 0.2186823 | 0.2186823 |
| 256 | 25:47.0 | 574376 | 6.35303E+12 | 5.68162E+13 | 5458.6 | 0.0280848 | 0.019573 | 0.0717129 | 0.6437005 | 0.6055886 | 0.21855137 | 0.21855137 |
| 257 | 30:49.8 | 574376 | 6.35303E+12 | 5.68162E+13 | 5452.56 | 0.0280848 | 0.0197916 | 0.0716335 | 0.6437005 | 0.6123521 | 0.21830955 | 0.21830955 |
| 258 | | | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 284 | 57:45.2 | 574395 | 6.35303E+12 | 5.53825E+13 | 5519.38 | 0.0170398 | 0.0192475 | 0.0743886 | 0.5272114 | 0.5955177 | 2.2670593 | 2.2670593 |
| 285 | 02:48.0 | 574395 | 6.35303E+12 | 5.53825E+13 | 5528.44 | 0.0176772 | 0.0192253 | 0.0745107 | 0.5469326 | 0.5948308 | 2.2707806 | 2.2707806 |
| 286 | 07:50.8 | 574395 | 6.35303E+12 | 5.53825E+13 | 5533.27 | 0.0176772 | 0.0191698 | 0.0745758 | 0.5469326 | 0.5931136 | 2.2727645 | 2.2727645 |
| 287 | 12:53.8 | 574396 | 6.35303E+12 | 5.44713E+13 | 5531.02 | 0.0176772 | 0.0189901 | 0.0757925 | 0.5469326 | 0.5875537 | 2.3098433 | 2.3098433 |
| 288 | 17:56.7 | 574396 | 6.35303E+12 | 5.44713E+13 | 5545.02 | 0.0176772 | 0.0189449 | 0.0759843 | 0.5469326 | 0.5861552 | 2.3156899 | 2.3156899 |
| 289 | 22:59.6 | 574396 | 6.35303E+12 | 5.44713E+13 | 5548.95 | 0.0176772 | 0.0189618 | 0.0760382 | 0.5469326 | 0.5866781 | 2.3173312 | 2.3173312 |
| 290 | 28:02.4 | 574397 | 6.35303E+12 | 5.38389E+13 | 5554.01 | 0.0176772 | 0.0190515 | 0.0770014 | 0.5469326 | 0.5894534 | 2.3466856 | 2.3466856 |
| 291 | 33:05.6 | 574397 | 6.35303E+12 | 5.38389E+13 | 5549.85 | 0.0176772 | 0.0186935 | 0.0769437 | 0.5469326 | 0.5783769 | 2.3449279 | 2.3449279 |
| 292 | 38:08.5 | 574397 | 6.35303E+12 | 5.38389E+13 | 5562.7 | 0.0176772 | 0.0189393 | 0.0771218 | 0.5469326 | 0.5859819 | 2.3503573 | 2.3503573 |
| 293 | 43:13.3 | 574397 | 6.35303E+12 | 5.38389E+13 | 5576.66 | 0.0176772 | 0.0188386 | 0.0773154 | 0.5469326 | 0.5828663 | 2.3562557 | 2.3562557 |
| 294 | 48:16.3 | 574397 | 6.35303E+12 | 5.38389E+13 | 5591.65 | 0.0176772 | 0.0189326 | 0.0775232 | 0.5469326 | 0.5857746 | 2.3625893 | 2.3625893 |
| 295 | 53:19.2 | 574397 | 6.35303E+12 | 5.38389E+13 | 5576.07 | 0.0176772 | 0.0194225 | 0.0773072 | 0.5469326 | 0.6009321 | 2.3560064 | 2.3560064 |
| 296 | 58:22.3 | 574398 | 6.35303E+12 | 5.24135E+13 | 5579.93 | 0.0176772 | 0.0194733 | 0.0794646 | 0.5469326 | 0.6025039 | 2.4217554 | 2.4217554 |
| 297 | 03:25.2 | 574399 | 6.35303E+12 | 5.22154E+13 | 5582.01 | 0.0178805 | 0.0197824 | 0.0797958 | 0.5532227 | 0.6120675 | 2.431849 | 2.431849 |
| 298 | 13:30.3 | 574400 | 6.35303E+12 | 5.19602E+13 | 5575.84 | 0.0178805 | 0.0197535 | 0.0800991 | 0.5532227 | 0.6111733 | 2.441092 | 2.441092 |
| 299 | 18:33.2 | 574400 | 6.35303E+12 | 5.19602E+13 | 5579.19 | 0.0178805 | 0.0198435 | 0.0801472 | 0.5532227 | 0.6139579 | 2.4425586 | 2.4425586 |
| 300 | 23:36.6 | 574401 | 6.35303E+12 | 5.14241E+13 | 5571.19 | 0.0178805 | 0.0198432 | 0.0808667 | 0.5532227 | 0.6139486 | 2.4644852 | 2.4644852 |
| 301 | 28:40.0 | 574401 | 6.35303E+12 | 5.14241E+13 | 5570.27 | 0.0178805 | 0.0199995 | 0.0808533 | 0.5532227 | 0.6187845 | 2.4640783 | 2.4640783 |
| 302 | 38:45.6 | 574403 | 6.35303E+12 | 5.16659E+13 | 5613.91 | 0.0178805 | 0.0206986 | 0.0811054 | 0.5532227 | 0.6404147 | 2.4717605 | 2.4717605 |
| 303 | 43:48.7 | 574404 | 6.35303E+12 | 5.22163E+13 | 5628.79 | 0.0178805 | 0.0201896 | 0.0804633 | 0.5532227 | 0.6246662 | 2.45219 | 2.45219 |
| 304 | 48:51.6 | 574405 | 6.35303E+12 | 5.26766E+13 | 5629.74 | 0.0178805 | 0.0221578 | 0.0797736 | 0.5532227 | 0.6855623 | 2.4311707 | 2.4311707 |
| 305 | 53:54.6 | 574406 | 6.35303E+12 | 5.44332E+13 | 5687.49 | 0.0178805 | 0.020244 | 0.077991 | 0.5532227 | 0.6263494 | 2.3768473 | 2.3768473 |
| 306 | 58:57.4 | 574407 | 6.35303E+12 | 5.44179E+13 | 5665.95 | 0.0178805 | 0.0201642 | 0.0777176 | 0.5532227 | 0.6238803 | 2.3685147 | 2.3685147 |
| 307 | 04:00.3 | 574407 | 6.35303E+12 | 5.44179E+13 | 5670.39 | 0.0186939 | 0.019061 | 0.0777785 | 0.5783893 | 0.5897473 | 2.3703707 | 2.3703707 |
| 308 | 09:03.7 | 574408 | 6.35303E+12 | 5.43366E+13 | 5670.17 | 0.0186939 | 0.0196968 | 0.0778918 | 0.5783893 | 0.609419 | 2.3738241 | 2.3738241 |
| 309 | 14:06.8 | 574409 | 6.35303E+12 | 5.45039E+13 | 5709.88 | 0.0186939 | 0.0199734 | 0.0781965 | 0.5783893 | 0.6179977 | 2.3831101 | 2.3831101 |
| 310 | 19:09.8 | 574409 | 6.35303E+12 | 5.45039E+13 | 5681.29 | 0.0186939 | 0.0202197 | 0.077805 | 0.5783893 | 0.6255975 | 2.3711776 | 2.3711776 |
| 311 | 24:13.3 | 574409 | 6.35303E+12 | 5.45039E+13 | 5681.4 | 0.0186939 | 0.022567 | 0.0778065 | 0.5783893 | 0.698223 | 2.3712235 | 2.3712235 |
| 312 | 34:18.6 | 574410 | 6.35303E+12 | 5.4739E+13 | 5723.04 | 0.0186939 | 0.021648 | 0.0780402 | 0.5783893 | 0.6697891 | 2.3783446 | 2.3783446 |
| 313 | 39:21.6 | 574410 | 6.35303E+12 | 5.4739E+13 | 5712.44 | 0.0186939 | 0.0217271 | 0.0778956 | 0.5783893 | 0.6722365 | 2.3739395 | 2.3739395 |
| 314 | 44:26.0 | 574410 | 6.35303E+12 | 5.4739E+13 | 5766.56 | 0.0186939 | 0.0214755 | 0.0786336 | 0.5783893 | 0.664452 | 2.3964304 | 2.3964304 |
| 315 | 49:30.2 | 574410 | 6.35303E+12 | 5.4739E+13 | 5752.64 | 0.0186939 | 0.0230133 | 0.0784438 | 0.5783893 | 0.7120315 | 2.3906456 | 2.3906456 |
| 316 | 54:33.3 | 574411 | 6.35303E+12 | 5.33843E+13 | 5785.23 | 0.0186939 | 0.0235469 | 0.0808902 | 0.5783893 | 0.7285411 | 2.4652002 | 2.4652002 |
| 317 | 59:36.0 | 574412 | 6.35303E+12 | 5.33495E+13 | 5778.03 | 0.0186939 | 0.0445382 | 0.0808422 | 0.5783893 | 1.3780119 | 2.4637378 | 2.4637378 |
| 318 | 04:38.7 | 574412 | 6.35303E+12 | 5.33495E+13 | 5707.59 | 0.0235949 | 0.0251205 | 0.0798566 | 0.7300262 | 0.7772283 | 2.4337024 | 2.4337024 |
| 319 | 09:41.6 | 574412 | 6.35303E+12 | 5.33495E+13 | 5698.98 | 0.0235949 | 0.0252324 | 0.0797362 | 0.7300262 | 0.696874 | 2.4300311 | 2.4300311 |
| 320 | 14:44.9 | 574412 | 6.35303E+12 | 5.33495E+13 | 5716.84 | 0.0235949 | 0.023342 | 0.079986 | 0.7300262 | 0.7222015 | 2.4376465 | 2.4376465 |
| 321 | 19:47.8 | 574413 | 6.35303E+12 | 5.25253E+13 | 5727.04 | 0.0235949 | 0.0235409 | 0.081386 | 0.7300262 | 0.7283554 | 2.4803111 | 2.4803111 |
| 322 | 24:51.0 | 574413 | 6.35303E+12 | 5.25253E+13 | 5727.44 | 0.0235949 | 0.0222209 | 0.0813917 | 0.7300262 | 0.6875146 | 2.4804844 | 2.4804844 |
| 323 | 29:53.8 | 574413 | 6.35303E+12 | 5.25253E+13 | 5735.97 | 0.0235949 | 0.0255547 | 0.0815129 | 0.7300262 | 0.7904335 | 2.4841786 | 2.4841786 |
| 324 | 34:56.6 | 574414 | 6.35303E+12 | 5.19701E+13 | 5739.52 | 0.0235949 | 0.0253504 | 0.0824347 | 0.7300262 | 0.7843414 | 2.5122723 | 2.5122723 |
| 325 | 39:59.3 | 574415 | 6.35303E+12 | 5.18073E+13 | 5733.01 | 0.0235949 | 0.0256234 | 0.0826 | 0.7300262 | 0.792788 | 2.5173089 | 2.5173089 |
| 326 | 45:02.1 | 574418 | 6.35303E+12 | 5.19586E+13 | 5730.9 | 0.0235949 | 0.0255253 | 0.0823292 | 0.7300262 | 0.7897528 | 2.5090566 | 2.5090566 |
| 327 | 50:05.4 | 574420 | 6.35303E+12 | 5.25895E+13 | 5722.12 | 0.0235949 | 0.0224989 | 0.0812169 | 0.7300262 | 0.696116 | 2.4751591 | 2.4751591 |
| 328 | 55:08.2 | 574421 | 6.35303E+12 | 5.25734E+13 | 5697.57 | 0.0235949 | 0.0363746 | 0.0808932 | 0.7300262 | 1.1254301 | 2.4652918 | 2.4652918 |
| 329 | 00:11.2 | 574421 | 6.35303E+12 | 5.25734E+13 | 5676.99 | 0.0269152 | 0.023551 | 0.080601 | 0.8327563 | 0.7286679 | 2.456387 | 2.456387 |
| 330 | 05:14.1 | 574423 | 6.35303E+12 | 5.29406E+13 | 5669.12 | 0.0269152 | 0.0218688 | 0.0799309 | 0.8327563 | 0.6766207 | 2.4359674 | 2.4359674 |
| 331 | 15:19.2 | 574424 | 6.35303E+12 | 5.28202E+13 | 5679.07 | 0.0269152 | 0.0283279 | 0.0802538 | 0.8327563 | 0.8764652 | 2.4458059 | 2.4458059 |
| 332 | 20:22.3 | 574425 | 6.35303E+12 | 5.23532E+13 | 5686.98 | 0.0269152 | 0.0487423 | 0.0810825 | 0.8327563 | 1.5080868 | 2.471061 | 2.471061 |
| 333 | 25:27.1 | 574426 | 6.35303E+12 | 5.30049E+13 | 5674.69 | 0.0269152 | 0.2374762 | 0.0799125 | 0.8327563 | 7.3475136 | 2.435404 | 2.435404 |
| 334 | 30:31.1 | 574427 | 6.35303E+12 | 5.28466E+13 | 5692.52 | 0.0269152 | 0.2299546 | 0.0804036 | 0.8327563 | 7.1147953 | 2.4503724 | 2.4503724 |
| 335 | 35:34.0 | 574427 | 6.35303E+12 | 5.28466E+13 | 5694.01 | 0.0269152 | 0.0490713 | 0.0804247 | 0.8327563 | 1.518266 | 2.4510138 | 2.4510138 |
| 336 | 40:36.8 | 574428 | 6.35303E+12 | 5.2354E+13 | 5713.35 | 0.0269152 | 0.0279617 | 0.0814571 | 0.8327563 | 0.865135 | 2.4824794 | 2.4824794 |
| 337 | 45:39.8 | 574428 | 6.35303E+12 | 5.2354E+13 | 5716.19 | 0.0269152 | 0.0282458 | 0.0814976 | 0.8327563 | 0.8739251 | 2.4837134 | 2.4837134 |
| 338 | 50:42.7 | 574428 | 6.35303E+12 | 5.2354E+13 | 5717.38 | 0.0269152 | 0.0284795 | 0.0815146 | 0.8327563 | 0.8811557 | 2.4842305 | 2.4842305 |
| 339 | 55:45.7 | 574429 | 6.35303E+12 | 5.15634E+13 | 5710.01 | 0.0269152 | 0.0240423 | 0.0826578 | 0.8327563 | 0.7436688 | 2.5190709 | 2.5190709 |
| 340 | 00:48.6 | 574429 | 6.35303E+12 | 5.15634E+13 | 5698.38 | 0.0275406 | 0.0225554 | 0.0824894 | 0.8521062 | 0.6978641 | 2.5139401 | 2.5139401 |
| 341 | 05:51.3 | 574429 | 6.35303E+12 | 5.15634E+13 | 5709.41 | 0.0275406 | 0.0225554 | 0.0826491 | 0.8521062 | 0.6978641 | 2.5188062 | 2.5188062 |
| 342 | 10:54.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5715.13 | 0.0275406 | 0.023496 | 0.0831866 | 0.8521062 | 0.7269662 | 2.5351866 | 2.5351866 |
| 343 | 15:58.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5712.23 | 0.0275406 | 0.023838 | 0.0831444 | 0.8521062 | 0.7375477 | 2.5339002 | 2.5339002 |
| 344 | 21:01.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5713.4 | 0.0275406 | 0.0238314 | 0.0831614 | 0.8521062 | 0.7373435 | 2.5344192 | 2.5344192 |
| 345 | 26:05.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5723.95 | 0.0275406 | 0.0239138 | 0.083315 | 0.8521062 | 0.739893 | 2.5390991 | 2.5390991 |
| 346 | 31:08.2 | 574430 | 6.35303E+12 | 5.12815E+13 | 5735.36 | 0.0275406 | 0.0247866 | 0.0834811 | 0.8521062 | 0.7668974 | 2.5441605 | 2.5441605 |
| 347 | 36:11.1 | 574430 | 6.35303E+12 | 5.12815E+13 | 5739.01 | 0.0275406 | 0.0244687 | 0.0835342 | 0.8521062 | 0.7570616 | 2.5457796 | 2.5457796 |
| 348 | 41:13.9 | 574430 | 6.35303E+12 | 5.12815E+13 | 5741.24 | 0.0275406 | 0.024823 | 0.0835666 | 0.8521062 | 0.7680236 | 2.5467688 | 2.5467688 |
| 349 | 46:16.8 | 574430 | 6.35303E+12 | 5.12815E+13 | 5724.65 | 0.0275406 | 0.0479102 | 0.0833252 | 0.8521062 | 1.4823416 | 2.5394096 | 2.5394096 |
| 350 | 51:19.5 | 574432 | 6.35303E+12 | 4.99455E+13 | 5726.23 | 0.0275406 | 0.0287101 | 0.0855777 | 0.8521062 | 0.8882905 | 2.6080579 | 2.6080579 |
| 351 | 56:22.3 | 574432 | 6.35303E+12 | 4.99455E+13 | 5715.44 | 0.0275406 | 0.0476762 | 0.0854165 | 0.8521062 | 1.4751016 | 2.6031435 | 2.6031435 |
| 352 | 01:25.2 | 574432 | 6.3530 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|----------|--------------|--------------|----------------------|-----------|---------------|---------------|-----------------------|-------------------|-------------------|------------|--------------|
| 1 | datetime | block_height | network_diff | est_network_hashrate | BTC_price | day_ahead_LMP | real_time_LMP | breakeven_mining_cost | day_ahead_LMP_rev | real_time_LMP_rev | mining_rev | realized_rev |
| 378 | 12:45.4 | 574449 | 6.35303E+12 | 5.17328E+13 | 5715.31 | 0.0291971 | 0.02575 | 0.0824635 | 0.9033583 | 0.796705 | 2.5131502 | 2.5131502 |
| 379 | 17:48.3 | 574450 | 6.35303E+12 | 5.16724E+13 | 5717.01 | 0.0291971 | 0.0260891 | 0.0825845 | 0.9033583 | 0.8071968 | 2.5168369 | 2.5168369 |
| 380 | 22:51.1 | 574450 | 6.35303E+12 | 5.16724E+13 | 5712.98 | 0.0291971 | 0.0257711 | 0.0825263 | 0.9033583 | 0.7973578 | 2.5150627 | 2.5150627 |
| 381 | 27:54.3 | 574450 | 6.35303E+12 | 5.16724E+13 | 5722.03 | 0.0291971 | 0.0258512 | 0.082657 | 0.9033583 | 0.7998361 | 2.5190469 | 2.5190469 |
| 382 | 32:57.1 | 574450 | 6.35303E+12 | 5.16724E+13 | 5727.15 | 0.0291971 | 0.0255716 | 0.082731 | 0.9033583 | 0.7911853 | 2.5213009 | 2.5213009 |
| 383 | 38:00.1 | 574451 | 6.35303E+12 | 5.07309E+13 | 5728.02 | 0.0291971 | 0.0261372 | 0.0842791 | 0.9033583 | 0.808685 | 2.5684819 | 2.5684819 |
| 384 | 43:03.0 | 574453 | 6.35303E+12 | 5.08262E+13 | 5712.01 | 0.0291971 | 0.0262532 | 0.083886 | 0.9033583 | 0.812274 | 2.5565013 | 2.5565013 |
| 385 | 48:06.4 | 574454 | 6.35303E+12 | 5.11925E+13 | 5714.36 | 0.0291971 | 0.0250628 | 0.08332 | 0.9033583 | 0.775443 | 2.5392517 | 2.5392517 |
| 386 | 53:09.2 | 574454 | 6.35303E+12 | 5.11925E+13 | 5702.85 | 0.0291971 | 0.0243144 | 0.0831522 | 0.9033583 | 0.7522875 | 2.5341371 | 2.5341371 |
| 387 | 58:12.0 | 574454 | 6.35303E+12 | 5.11925E+13 | 5709.89 | 0.0291971 | 0.0240068 | 0.0832548 | 0.9033583 | 0.7427704 | 2.5372654 | 2.5372654 |
| 388 | 03:14.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5717.23 | 0.0316183 | 0.0251727 | 0.0833618 | 0.9782702 | 0.7788433 | 2.540527 | 2.540527 |
| 389 | 08:17.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5706.69 | 0.0316183 | 0.0241637 | 0.0832082 | 0.9782702 | 0.7476249 | 2.5358434 | 2.5358434 |
| 390 | 13:20.8 | 574454 | 6.35303E+12 | 5.11925E+13 | 5717.65 | 0.0316183 | 0.0244866 | 0.0833368 | 0.9782702 | 0.7576154 | 2.5407136 | 2.5407136 |

Bearbox v Lancium
Trial Exhibit
TX920-12

HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

Appx13447

BB10000923

Let's talk 9AM CST Friday morning. My cell is (985) 377-6257.

Cool, a 1.5MW pilot is ~\$1MM and should take about 6 weeks to fully deploy.

-A

On Nov 28, 2018, at 8:22 AM, Ben Hakes <ben@paretoadvisors.com> wrote:

See my responses below.

A few clarifying questions:

Explain load "behind" substation? I mean that the wind farm sits behind the substation which connects it with the rest of the grid. The mining operation would tap into one of the cable runs that sits between the turbines and the substation. "Behind the meter", one could also say.

Explain \$3/MW - traditionally, this is measured in \$/kWh (and accounts for 85%+ of monthly opex).

I mean \$3/MWh or \$0.03/kWh. These guys typically think about selling power by the MWh, so they'll say \$3 or \$0.03 pretty interchangeably (as opposed to retail power which is almost always kWh).

1: Yes to digging more, let's get the NDAs done ASAP.

I will make some calls today about this.

2: 20MW site is ~65 BearBoxes, that'd take 10-12 months (and a load of capital).

Roughly how many acres would you need here? A high-level estimate is fine.

3: 5MW site is ~18 BearBoxes, that'd take 3-4 months ("").

Roughly how many acres would you need here?

If they have enough wind generation a ~\$0/kWh cost of marginal production, it makes sense for them to mine Bitcoin and be the producer of a provably scarce, highly sought after digital commodity.

Exactly. They think this is part of a larger trend as "wires charges" continue to increase as a result of labor/employee benefit/grid maintenance cost but the cost of fuel remains relatively flat.

Let's hop on a call this week - let me know when you're avail.

Mornings before 10am central is best. I can talk as early as 8:00a.

-A

P.S. - We're gonna need more than \$10MM.

Let's assume we right-size the BearBoxes/MW to the funding raise. It is possible that they would want to do a 1-2 MW pilot first, then scale.

On Tue, Nov 27, 2018 at 11:20 PM austin@bearbox.io Austin Storms <austin@bearbox.io> wrote:

For sure, Ben. I'm glad to hear you're enjoying the classes at Lambda, I've only heard great things and I'm currently lobbying my brother to apply.

It's great that you're keeping your ear to the ground for opportunities and you love Bitcoin - same here!

The deal sounds good, fair, and reasonable.

A few clarifying questions:

Explain load "behind" substation?

Explain \$3/MW - traditionally, this is measured in \$/kWh (and accounts for 85%+ of monthly opex).

1: Yes to digging more, let's get the NDAs done ASAP.

2: 20MW site is ~65 BearBoxes, that'd take 10-12 months (and a load of capital).

3: 5MW site is ~18 BearBoxes, that'd take 3-4 months ("").

#gam-announcements Company-wide announcements and work-based matters. PSA: the off topic room is here #offtopic

16

Tom Masiero 10:21 AM
Based

August 3rd, 2020

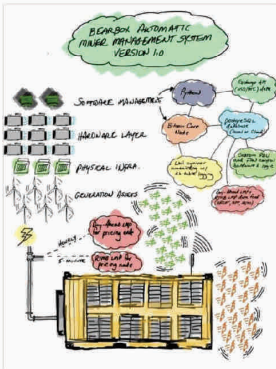
Austin Storms 10:51 AM
We should host an oil and gas Bitcoin mining virtual workshop and cold email the entire industry.
✓ 1

Rete Browning 10:52 AM
at DOE we called that "CC the world"
1

Austin Storms 10:54 AM
And make the first one invite only - call it An Intro to Bitcoin Mining: Oil and Gas

Marty Bent 11:04 AM
love it

Austin Storms 11:05 AM
Maybe rework this illustration to utilize NG instead of wind?
Image from iOS



Rete Browning 11:06 AM
Did you draw that? 😊

Tom Masiero 11:07 AM
I love doodles like this

Austin Storms 11:07 AM
Yea on an iPad Pro like 3 years ago 😂

This is what Layer1's demand response/controllable load resource program is in a kindergarten nutshell

With O&G, I could just rework parts of the stack to include a flare boom/vent and illustrate their existing problem we're working to solve.

Austin Storms 11:30 AM
We doing this standup today?
1

Bearbox v Lancium
Trial Exhibit
TX957

TX962

**BearBox v. Lancium
21-cv-00534**

To: Austin Storms[austin@bearbox.io]; Mike Hoadley[mhoadley@glidepath.net]; Chris Vickery[cvickery@glidepath.net]
Cc: Ben Hakes[ben@paretoadvisors.com]
From: Denis Labij
Sent: Thur 4/25/2019 3:17:10 PM
Subject: RE: Day-ahead vs. RTBM LMP biz requirements and data questions

Austin,

See comments below in **red**.

Denis

From: Austin Storms <austin@bearbox.io>
Sent: Thursday, April 25, 2019 12:17 AM
To: Denis Labij <dlabij@glidepath.net>; Mike Hoadley <mhoadley@glidepath.net>; Chris Vickery <cvickery@glidepath.net>
Cc: Ben Hakes <ben@paretoadvisors.com>
Subject: Day-ahead vs. RTBM LMP biz requirements and data questions

Hey guys,

I've been working on some code for the miner management system that integrates RTBM LMP profitability checks - but have a few questions regarding business requirements and available data feeds.

From my understanding, the day-ahead LMP \$/MWh is calculated based on forecast estimated demand and the RTBM LMP \$/MWh fills the gap between the estimated demand in day-ahead market and actual demand in real-time... is this correct? **Sort of. In most ISOs the day-ahead market clears offered and self-scheduled generation against bid and self-scheduled load. Since there can be deviation charges for being off of your day-ahead schedule, I suspect most market participants offer and bid near their forecasts, though there may sometimes be reasons not to. RTBM is based on what is actually happening (ex ante) or actually has happened (ex post) on the system.**

The data modeling and system I've been building fetches RTBM LMP price and compares the profitability of selling load @ RTBM LMP vs. using the same load to mine Bitcoin, but I'm not exactly sure what the business requirements are - and I'm looking for a bit of guidance to build the model to show contrasted profitability. **You would first want to calculate a break even power price. This will depend on the power efficiency of your units, and the expected revenue per Terra Hash. Let's say this number is estimated to be \$30/MWh. You would either bid DA load at \$30 (i.e. you receive a schedule to draw load if the DA LMP is less than \$30) or you offer a block of generation equal to the capacity of your miner at \$30 (i.e. you receive a schedule to deliver power if the DA LMP is greater than \$30). You would then do the same thing in RT. That is, if the RT LMP is greater than \$30, and you have a DA schedule, you will want to curtail the miner and offset your DA schedule by selling it into the RT instead (this happens automatically as a result of being off of your DA schedule). Similarly, if you have no DA schedule, and prices go below \$30 in RT, you will want to turn your miner on. Settlements can get pretty complicated and may vary from one ISO to the next, but this is the general idea.**

The data feed I've been utilizing is from the SPP marketplace - see link here to the 5-minute RTBM (<https://marketplace.spp.org/file-api/download/rtbm-lmp-by-location?path=%2FRTBM-LMP-SL-latestInterval.csv>). The only problem with fetching the .csv file is that it's a bit finicky - *is there another data feed that Glide Path uses to get RTBM LMP pricing at specific node location?* **There is, but you need to be a market participant with portal access to query it. There is also public access to hourly-average RT prices**

but, as far as I know, not 5-min prices SPP mentions an FTP server in some of their Feb '18 published documentation, but I've yet to successfully authenticate to that server. **If this is part of the portal, you would need a market participant digital certificate with the appropriate permissions.**

As always, I appreciate your time, consideration, and helpful input!

Thanks and talk soon,

Austin
Austin M. Storms
BearBox, LLC
611 O' Keefe Avenue
New Orleans, LA 70113
austin@bearbox.io

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*Data Center Modules
Turbine Inlet Chilling
Modular Central Plants
Aftermarket Services*

1803343 Lancium Data Box R3.2 - 11 May 18

Scope Split

| By Lancium | By TAS |
|---|--|
| | Steel Base |
| | Steel / Aluminum Wall system |
| | Inlet Louvers |
| | Exit Louvers |
| | Inlet Filters |
| | Floor Grating |
| | Entry Doors, qty 2 |
| | Building controls |
| | Fans – qty 20 |
| | Misting System |
| | Fire System |
| | Distribution Panel Boards x qty 2, 1200A |
| | Utility Lighting |
| | Provisions for Security Entry |
| | Busway – requires clean install |
| | Starline Plug-Ins / Stab boxes |
| | |
| Shelf PDU / Whip? | |
| Miners – qty 980 | |
| Miner Power Supply – qty 980 | |
| Data Switches – qty ? | |
| Wire Management | |
| SCADA | |
| External stairs/platform for entry | |
| Data Box Field Installation | |
| Water supply / storage to feed misting system connections | |
| Electrical distribution to feed TAS Panel Boards | |
| | |
| | |

Lancium Info Needed

1. Confirm scope split
2. Miner shelves supplied by Lancium or TAS?
3. Miner SCADA footprint, conduit and cable requirements
4. Miner relative humidity envelope

Bearbox v Lancium
Trial Exhibit
TX979

6110 Cullen Blvd. | Houston, TX 77021 | 713-877-8700 | www.tas.com

5. Plan for electrical distribution from Distribution Panel Boards all the way to the Miner Power Supply.
6. Confirm fire system media – CO2 vs misting system.

Schedule

Initial Build – 4 x 1.6MW Boxes. 10 weeks

| | | |
|------|----|--------------------------------------|
| 5/21 | | Firm offering |
| 5/25 | 4D | Receive PO, Down payment |
| 6/8 | 2W | Complete Engr & Long lead POs issued |
| 7/13 | 5W | Material receipt |
| 7/27 | 2W | RTS, 2 boxes |
| 8/1 | 3D | RTS, 2 boxes |

Mass Build – 63 x 1.6MW Boxes.

| | | |
|------------|-----|---|
| 8/13 | | Receive PO, Down payment |
| 9/3 | 3W | Begin fabrication |
| 9/14 | 2W | Receipt of all materials |
| 9/24 | 1W+ | RTS. 1 box per day |
| 9/24-12/24 | | RTS. 1 box per day (5/week). Off 2D Thanksgiving. Off 5D Christmas. |

Discussion Points

Control Narrative – fire, miners, fans, misting system

Maintainability – filters, misting system

Certifications – UL, other

Revision Tracking

Rev 1 – filter and evap plenum top mounted; 1 MW

Rev 2 - filter and evap plenum bottom mounted; 1 MW

Rev 3.0 – filter and misting system bottom mounted; single box; 1.6MW. 5-8-18

Rev 3.1 – filter and misting system bottom mounted; single box; Busway and Starline plug-in / stab box to TAS scope. 1.6MW. 5-9-18

Rev 3.2 – updated Lancium questions.

From: Jacob Magin <jacob.magin@mp2energy.com>

To: "ian.rock@lancium.com" <ian.rock@lancium.com>, "recline@lancium.com" <recline@lancium.com>, "thomas.salvatore@lancium.com" <thomas.salvatore@lancium.com>, "vitor.henrique@lancium.com" <vitor.henrique@lancium.com>

Cc: MP2 Asset Operations Desk <operations@mp2energy.com>

Subject: ADK_LD1 - Lancium.xlsx

Date: Mon, 26 Aug 2019 11:17:36 -0500

Importance: Normal

Attachments: ADK_LD1_-_Lancium.xlsx

| |
|--|
| Bearbox v Lancium Trial Exhibit TX981 |
|--|

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|---|-----------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|----------|-----------|-------------|-------------|-------------|-------------|-----------|----------|----------|---------|---------|---------|
| 1 | 8/26/2019 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | ADK_LD1 | | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 3 | Awards | | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.6 | 0.5 |
| 4 | UMP | | \$ 1.20 | \$ 1.20 | \$ 1.20 | \$ 1.20 | \$ 1.20 | \$ 1.43 | \$ 2.27 | \$ 2.61 | \$ 3.11 | \$ 4.24 | \$ 6.92 | \$ 12.50 | \$ 26.64 | \$ 206.23 | \$ 1,304.11 | \$ 3,512.96 | \$ 2,572.23 | \$ 1,401.08 | \$ 133.96 | \$ 216.9 | \$ 14.29 | \$ 8.46 | \$ 6.29 | \$ 3.11 |

FRANK C. McCAMANT

PO Box 26921 • Austin, Texas 78755 • frank@mccamantconsulting.com • 512.422.4704

Independent consultant for the electric utilities industry

PROFESSIONAL EXPERIENCE

McCAMANT CONSULTING LLC, Austin, Texas

McCamant Consulting is a business and strategy development partner for organizations involved in energy resource management and smart grid development. Based in Austin, Texas, I help public and private entities develop a strategic focus for their business development efforts – and translate that strategy into action.

Relationships are important to any business, but they are crucial in the electric utility sector. I bring a wealth of executive-level relationships and experience negotiating tough deals while crafting sound public policy. Over the course of my 33-year career, I have tackled some of the toughest utility management challenges on the public agenda. My results-oriented, collaborative style has won the trust and support of stakeholders from the board room to the living room – often in highly charged environments.

Why do public and private industry leaders turn to McCamant Consulting for business and strategy development execution?

Two simple but powerful reasons: Relationships. Results.

Areas of Focus:

- Wholesale power supply PPAs
- ERCOT market stakeholder process/representation
- PUCT regulatory monitoring
- ERCOT market monitoring / analytics
- Demand Response opportunities
- Load Resources
- Power project development / off-take agreements
- Fuel procurement / generation operations
- Expert witness

(www.mccamantconsulting.com)

PROJECT EXPERIENCE

Ranch Land Partnership, South Texas, USA

Subject Matter Expert, ERCOT Market

Mr. McCamant provided advisory services for an independent assessment of a proposed solar farm development. This included securing an experienced engineering subcontractor for the detailed review.

Investor-owned Electric Utility, Missouri/Kansas, USA

Independent Assessment/Subject Matter Expert (Utilicast)

Mr. McCamant authored the Generation Operations/Fuel Procurement sections and provided overall review of a comprehensive report assessing the client's response to the extreme cold weather in the region that occurred between February 10, 2021, and February 20, 2021. Utilicast's findings were

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**BearBox v. Lancium
21-cv-00534**

October 2021 - Present

October 2021 - November 2021

FRANK C. MCCAMANT • Page 4

delivered in a detailed written report addressing fuel procurement, generation, transmission and distribution operations, market coordination, and communications.

Professional Services Organization, Maryland, USA**September 2021 - Present**

Subject Matter Expert, ERCOT Market

Mr. McCamant provided advisory services for developing opportunities for FCC regulatory compliance offerings that service the wireless and utility industries.

Law Firm/Electric Cooperative, Texas, USA**June 2021 - November 2021**

Subject Matter Expert, ERCOT Market

Mr. McCamant was an expert rebuttal witness on the ERCOT market design and operation for a contested power plant property tax assessment case.

Electric Cooperative, Johnson City, Texas, USA**March 2021 – June 2021**

Subject Matter Expert, Regulatory & Legislative Issues (Utilicast)

Independent Assessment: Mr. McCamant was part of an after-action process and policy review concerning PEC's response to the extreme cold weather in the region that occurred between February 10, 2021 and February 20, 2021. Utilicast was charged with identifying potential gaps and opportunities in PEC's operations during the winter event. Mr. McCamant served as the SME for regulatory and legislative issues.

Non-profit Energy Company, New England, USA**February 2018 – Present**

Subject Matter Expert, Transmission Development, Renewables

Mr. McCamant provided advisory services for developing participation opportunities for new transmission projects in the Texas market including PUCT and ERCOT monitoring, relationship development, and ongoing support.

Regulatory Agency, Mexico City, Mexico**October - November 2016**

Subject Matter Expert, Demand Response (Utilicast)

Mr. McCamant provided a comprehensive report and recommendations for future implementation of demand response in Mexico's energy market.

Utilicast, Consultant**October 2016 – Present**

Subject Matter Expert

Utilicast is more than just a consulting company. We provide our customers in the energy industry with an expert level of service that brings results from both a Business Practices and Information Technology perspective. Our ability to provide customized software development, data knowledge, project management and deep business acumen helps Utilicast clients meet their goals on time and on budget. Headquartered in Seattle, Washington. (<http://www.utilicast.com>)

Telecommunications Network Company, Raleigh, NC, USA**May 2015**

Subject Matter Expert

Mr. McCamant provided research and a presentation on the characteristics and potential growth of energy storage resources.

Electric Cooperative, Bandera, Texas, USA**March 2014 – Present**

Subject Matter Expert, Wholesale power supply, Demand Response, Smart Grid, Distributed Energy Resources

Mr. McCamant provided advisory and support services for wholesale power supply PPAs, ERCOT market stakeholder process/representation, PUCT monitoring, ERCOT market monitoring / analytics, and demand response opportunities.

FRANK C. MCCAMANT • Page 3

Crescent Power, Inc., Austin, TX, USA**October 2013 – Present***VP, Asset Development*

Mr. McCamant was part of a strategic consulting alliance that provided advisory and marketing support services for power project development clients and related off-take agreements, PUCT monitoring, and ERCOT market monitoring and analytics.

Consert, Inc., San Antonio, TX, USA**October 2011 – February 2013***Board Director*

Consert Inc. is a thought and action leader in the design and implementation of intelligent energy distribution and load management. Consert converts electric consumption in homes and small businesses into cost-effective, clean sources of capacity and energy reserves for utilities. The Consert load management solution is based on real-time, wireless technology which allows participants to conserve energy using a web-based, home area network. Consert utilizes the Verizon Wireless network to provide real-time communication to the Consert data center. This highly secure network delivers fast data speeds and increased efficiencies for utilities.

Municipal Electric Utility, San Marcos, TX, USA**August 2011 – Present***Subject Matter Expert, Wholesale power supply, Distributed Energy Resources*

Mr. McCamant provided advisory and support services for wholesale power supply PPAs, ERCOT market stakeholder process/representation, PUCT monitoring, and ERCOT market monitoring / analytics.

Smart Grid Company, Raleigh, NC/ San Antonio, TX, USA **November 2009 – September 2014***Subject Matter Expert, Marketing*

Mr. McCamant provided advisory and marketing support services for demand response development for Smart Grid applications and related resource agreements, PUCT monitoring, ERCOT market monitoring and analytics.

Independent Project Developer, Houston, TX, USA**July 2009 – June 2013***Subject Matter Expert, Marketing*

Mr. McCamant provided advisory and marketing support services for power project development and related off-take agreements, PUCT monitoring, ERCOT market monitoring and analytics.

Small Consulting Company, Austin, TX, USA**May 2009 – October 2009***Subject Matter Expert*

Mr. McCamant provided advisory and support services for energy efficiency/demand response projects.

Regional Engineering Firm, Austin, TX, USA**October 2008 – November 2010***Subject Matter Expert, Marketing*

Mr. McCamant provided advisory and marketing support services for a pumped storage project development and related off-take agreements, PUCT monitoring, ERCOT market monitoring and analytics.

Electric Cooperative, Bastrop, Texas, USA**September 2008 – Present***Subject Matter Expert, Wholesale power supply, Demand Response, Smart Grid, Distributed Energy Resources*

Mr. McCamant provided advisory and support services for wholesale power supply PPAs, ERCOT market stakeholder process/representation, PUCT monitoring, ERCOT market monitoring / analytics, demand response opportunities, and Load Resources.

FRANK C. MCCAMANT • Page 4

Lower Colorado River Authority, Austin, TX, USA**May 1978 – September 2008***Executive Management, Business Development, Strategic Planning, Fuels Development*

Business Development: Led efforts to successfully develop, negotiate, and implement major electric generation, electric transmission, and water utility development agreements. Led efforts to successfully establish public input and collaboration processes on controversial utility projects. Researched and established key external relationships and alliances.

Strategic Planning: Monitored high-level policy issues across the company and helped establish processes to resolve key issues at the board level. Established a corporate-level strategic planning process with senior management and board of directors. Developed strategic generation fuel portfolio to forecast and manage pricing structure and risk that resulted in lowest cost fuel in Texas; enabled company to gain competitive edge. Developed proposal and led initial effort to evaluate the viability of multi-million dollar acquisition partnership.

Financial Planning: Executive level steering committee that provided in-depth review and approval of financial policy, capital spending and long-term planning. Implemented and administered a capital budget process for diverse business units.

Administered multi-million dollar engineering/construction projects that consistently met timelines and budget constraints. Re-evaluated major gas storage project to determine validity of continuing the project; made immediate significant change to return the project to financial viability. Negotiated rail transportation contracts for fuel supplies that reduced cost by 33%.

Business Management: Utilized knowledge of contract law and mediation in the negotiation and administration of multi-million dollar contracts. Highly skilled in accurately defining problems and formulating collaborative teams to resolve issues. Restructured customer/community relations function implementing a regional representative plan that has proven successful in developing relationships and enhancing the company's image.

Electric Deregulation: Initiated and chaired a national coalition (Large Public Power Council) task force focused on responding to federal/state policy issues relating to the restructuring of the electric utility industry. Monitored electric industry restructuring and lead the development of strategic, operational, and legislative action plans.

OTHER EXPERIENCE**Electric Utility, Austin, TX, USA****December 1977 – May 1978***Staff Engineer*

Provided engineering support for the construction of a large jointly-owned Western coal power plant.

EDUCATION**University of Texas at Austin, TX****Executive MBA**

With honors, international studies in London.

University of Texas at Austin, TX**B.S. Civil Engineering**

With honors, Beta Sigma Gamma, Phi Kappa Phi.

SKILLS AND EXPERTISE

Smart Grid, Project Management, Vendor Management, Customer management, Power Marketing, Business Design, Market Design, Microsoft Office, Data Analysis, Energy Markets, Electricity Markets, Electric Power, Process Improvement, FERC, Energy Management, Program Management, Smart Metering, Power Systems, Business Process, Strategy, Project Planning, Power Generation,

FRANK C. MCCAMANT • Page 3

Engineering, Energy Policy, Energy Industry, Energy, Demand Response, Business Process Improvement, Integration

CERTIFICATIONS

Registered Professional Engineer • State of Texas • No. 51967

LANGUAGES

Native English and Basic German

APPOINTMENTS & HONORS

| | |
|-------------------|--|
| President/Chair – | Arc of the Capital Area Board of Directors (past) Texas Council on Autism & Pervasive Developmental Disorders (past) |
| Board Member – | Hope Chapel (past) Metropolitan Board of the Austin YMCA (past) Western Coal Traffic League Executive Board (past) |
| Member – | Large Public Power Council - Electric Restructuring Task Force (past Chair) |
| Honor Societies – | Beta Sigma Gamma |

HOBBIES

Fly Fishing, Upland Hunting, Ranching, Photography, Music, and Traveling

| | |
|----------------|---|
| Begin Bates | LANCIUM00032627 |
| End Bates | LANCIUM00032627 |
| Pages | 1 |
| BeginFamily | LANCIUM00032627 |
| EndFamily | LANCIUM00032627 |
| Family Range | LANCIUM00032627 - LANCIUM00032627 |
| Parent Id | |
| AttachBates | |
| File Extension | xlsx |
| File Size | 92137 |
| MD5 Hash | 05706b8459edcd238cb6694b2e091350 |
| Date Modified | |
| Date Created | 5/9/2019 16:28 |
| Author | |
| Filename | exelon4_modeling_05092019 (1).xlsx |
| Time Received | |
| Date Received | |
| Date Sent | |
| Time Sent | |
| From | |
| To | |
| Cc | |
| Bcc | |
| Custodian | Raymond Cline Jr |
| Message Id | |
| Subject | |
| File Path | Cline Extracted User Files.zip.zip//Extracted User Files/Users/recli/Downloads/exelon4_modeling_05092019 (1).xlsx |
| TextPath | text\0001\LANCIUM00032627.txt |
| NativePath | natives\0001\LANCIUM00032627_CONFIDENTIAL.xlsx |

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| | A | B | C | D | E | F | G | H | I | J | K | L |
|----|-----------|--------------|-----------------------|--------------|---------------|-------------------|----------------------|------------|--------------|---------------|-------------------|--------------|
| 1 | BTC_price | block_height | breakeven_mining_cost | datetime | day_ahead_LMP | day_ahead_LMP_rev | est_network_hashrate | mining_rev | network_diff | real_time_LMP | real_time_LMP_rev | realized_rev |
| 2 | 5698.24 | 574867 | 0.0883609 | 5/6/19 11:37 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6928794 | 6.70217E+12 | 0.0283682 | 0.8777121 | 2.6928794 |
| 3 | 5704.01 | 574867 | 0.0884504 | 5/6/19 11:42 | 0.0292715 | 0.9056602 | 4.81358E+13 | 2.6956062 | 6.70217E+12 | 0.0256282 | 0.6956062 | 2.6956062 |
| 4 | 5721.16 | 574868 | 0.0878003 | 5/6/19 11:47 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6757929 | 6.70217E+12 | 0.0266466 | 0.8244458 | 2.6757929 |
| 5 | 5712.77 | 574868 | 0.0876715 | 5/6/19 11:52 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6718689 | 6.70217E+12 | 0.0294184 | 0.9102053 | 2.6718689 |
| 6 | 5702.98 | 574868 | 0.0875213 | 5/6/19 11:57 | 0.0292715 | 0.9056602 | 4.86381E+13 | 2.6672901 | 6.70217E+12 | 0.2156316 | 6.6716417 | 6.6716417 |
| 7 | 5711.53 | 574868 | 0.0876525 | 5/6/19 12:02 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.671289 | 6.70217E+12 | 0.4257598 | 13.1730082 | 13.1730082 |
| 8 | 5719.99 | 574868 | 0.0877823 | 5/6/19 12:08 | 0.0319112 | 0.9873325 | 4.86381E+13 | 2.6752457 | 6.70217E+12 | 0.2947237 | 9.1187513 | 9.1187513 |
| 9 | 5711.93 | 574869 | 0.0870193 | 5/6/19 12:13 | 0.0319112 | 0.9873325 | 4.89954E+13 | 2.6519913 | 6.70217E+12 | 0.1560219 | 4.8273176 | 4.8273176 |
| 10 | 5708.01 | 574871 | 0.0868646 | 5/6/19 12:18 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6472769 | 6.70217E+12 | 0.0253548 | 0.7844775 | 2.6472769 |
| 11 | 5701.9 | 574871 | 0.0867716 | 5/6/19 12:23 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.6444432 | 6.70217E+12 | 0.027036 | 0.8364938 | 2.6444432 |
| 12 | 5698.51 | 574871 | 0.08672 | 5/6/19 12:28 | 0.0319112 | 0.9873325 | 4.9049E+13 | 2.642871 | 6.70217E+12 | 0.026636 | 0.8241178 | 2.642871 |
| 13 | 5705.99 | 574875 | 0.0875317 | 5/6/19 13:07 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6676082 | 6.70217E+12 | 0.0297482 | 0.9204093 | 2.6676082 |
| 14 | 5706.72 | 574875 | 0.0875429 | 5/6/19 13:11 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6679495 | 6.70217E+12 | 0.0283545 | 0.8772882 | 2.6679495 |
| 15 | 5702.01 | 574875 | 0.0874707 | 5/6/19 13:16 | 0.0316965 | 0.9806897 | 4.86579E+13 | 2.6657475 | 6.70217E+12 | 0.0263671 | 0.8157981 | 2.6657475 |
| 16 | 5703.44 | 574876 | 0.0881359 | 5/6/19 13:21 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6860221 | 6.70217E+12 | 0.027458 | 0.8495505 | 2.6860221 |
| 17 | 5705.99 | 574876 | 0.0881753 | 5/6/19 13:26 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687223 | 6.70217E+12 | 0.0295297 | 0.9136489 | 2.687223 |
| 18 | 5706.85 | 574876 | 0.0881886 | 5/6/19 13:31 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.687628 | 6.70217E+12 | 0.029437 | 0.9107808 | 2.687628 |
| 19 | 5726.52 | 574876 | 0.0884926 | 5/6/19 13:36 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6968915 | 6.70217E+12 | 0.0294668 | 0.911084 | 2.6968915 |
| 20 | 5727.41 | 574876 | 0.0885064 | 5/6/19 13:41 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6973107 | 6.70217E+12 | 0.0291977 | 0.9033768 | 2.6973107 |
| 21 | 5742.95 | 574876 | 0.0887465 | 5/6/19 13:46 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7046292 | 6.70217E+12 | 0.0461903 | 1.4291279 | 2.7046292 |
| 22 | 5734.03 | 574876 | 0.0886086 | 5/6/19 13:51 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.7004284 | 6.70217E+12 | 0.0300478 | 0.9296789 | 2.7004284 |
| 23 | 5731.45 | 574876 | 0.0885688 | 5/6/19 13:56 | 0.0316965 | 0.9806897 | 4.83028E+13 | 2.6992133 | 6.70217E+12 | 0.023358 | 0.7226965 | 2.6992133 |
| 24 | 5739.99 | 574877 | 0.0901743 | 5/6/19 14:01 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7481417 | 6.70217E+12 | 0.0252541 | 0.7813619 | 2.7481417 |
| 25 | 5749.1 | 574877 | 0.0903174 | 5/6/19 14:06 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7525033 | 6.70217E+12 | 0.022385 | 0.6925919 | 2.7525033 |
| 26 | 5732.99 | 574877 | 0.0900643 | 5/6/19 14:11 | 0.0292446 | 0.9048279 | 4.75135E+13 | 2.7447903 | 6.70217E+12 | 0.0278815 | 0.8626536 | 2.7447903 |
| 27 | 5722.65 | 574878 | 0.0904991 | 5/6/19 14:16 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7580421 | 6.70217E+12 | 0.0276273 | 0.8547887 | 2.7580421 |
| 28 | 5719.43 | 574878 | 0.0904482 | 5/6/19 14:21 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7564902 | 6.70217E+12 | 0.0401146 | 1.2411457 | 2.7564902 |
| 29 | 5727.52 | 574878 | 0.0905761 | 5/6/19 14:26 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7603892 | 6.70217E+12 | 0.0357633 | 1.1065165 | 2.7603892 |
| 30 | 5719.12 | 574878 | 0.0904433 | 5/6/19 14:31 | 0.0292446 | 0.9048279 | 4.71999E+13 | 2.7563408 | 6.70217E+12 | 0.0216376 | 0.6694673 | 2.7563408 |
| 31 | 5720.06 | 574880 | 0.0904384 | 5/6/19 14:37 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7561911 | 6.70217E+12 | 0.0206897 | 0.6401393 | 2.7561911 |
| 32 | 5730.64 | 574880 | 0.0906057 | 5/6/19 14:42 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7612891 | 6.70217E+12 | 0.0212322 | 0.6569243 | 2.7612891 |
| 33 | 5734.69 | 574880 | 0.0906697 | 5/6/19 14:47 | 0.0292446 | 0.9048279 | 4.72102E+13 | 2.7632406 | 6.70217E+12 | 0.0214839 | 0.6647119 | 2.7632406 |
| 34 | 5739.31 | 574881 | 0.090775 | 5/6/19 14:52 | 0.0292446 | 0.9048279 | 4.71935E+13 | 2.7664494 | 6.70217E+12 | 0.0212921 | 0.6587776 | 2.7664494 |
| 35 | 5736.72 | 574882 | 0.0910352 | 5/6/19 14:57 | 0.0292446 | 0.9048279 | 4.70373E+13 | 2.7743811 | 6.70217E+12 | 0.020696 | 0.6403342 | 2.7743811 |
| 36 | 5741.99 | 574883 | 0.0905084 | 5/6/19 15:02 | 0.0212846 | 0.6585455 | 4.73545E+13 | 2.7583257 | 6.70217E+12 | 0.0203623 | 0.6300096 | 2.7583257 |
| 37 | 5733.24 | 574885 | 0.0890821 | 5/6/19 15:07 | 0.0212846 | 0.6585455 | 4.80395E+13 | 2.7148565 | 6.70217E+12 | 0.0198016 | 0.6126615 | 2.7148565 |
| 38 | 5724.73 | 574886 | 0.0885552 | 5/6/19 15:12 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6988006 | 6.70217E+12 | 0.0190006 | 0.5878786 | 2.6988006 |
| 39 | 5709.73 | 574886 | 0.0883232 | 5/6/19 15:17 | 0.0212846 | 0.6585455 | 4.82535E+13 | 2.6917292 | 6.70217E+12 | 0.0184907 | 0.5721023 | 2.6917292 |
| 40 | 5678.11 | 574887 | 0.0883835 | 5/6/19 15:22 | 0.0212846 | 0.6585455 | 4.79528E+13 | 2.6936119 | 6.70217E+12 | 0.023136 | 0.7158278 | 2.6936119 |
| 41 | 5683.73 | 574888 | 0.0873487 | 5/6/19 15:27 | 0.0212846 | 0.6585455 | 4.85697E+13 | 2.6620299 | 6.70217E+12 | 0.0165815 | 0.5130316 | 2.6620299 |
| 42 | 5681.84 | 574891 | 0.0832705 | 5/6/19 15:32 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.5377429 | 6.70217E+12 | 0.0157946 | 0.4886849 | 2.5377429 |
| 43 | 5697.16 | 574891 | 0.083495 | 5/6/19 15:37 | 0.0212846 | 0.6585455 | 5.09315E+13 | 2.5445855 | 6.70217E+12 | 0.0722406 | 2.2351242 | 2.5445855 |
| 44 | 5684.36 | 574892 | 0.0835678 | 5/6/19 15:42 | 0.0212846 | 0.6585455 | 5.07728E+13 | 2.5468044 | 6.70217E+12 | 0.025128 | 0.7774603 | 2.5468044 |
| 45 | 5683.95 | 574894 | 0.0819393 | 5/6/19 15:47 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.4971743 | 6.70217E+12 | 0.0141482 | 0.4377453 | 2.4971743 |
| 46 | 5700.28 | 574894 | 0.0821747 | 5/6/19 15:52 | 0.0212846 | 0.6585455 | 5.17781E+13 | 2.5043487 | 6.70217E+12 | 0.0158794 | 0.4913086 | 2.5043487 |
| 47 | 5700.01 | 574895 | 0.0825354 | 5/6/19 15:57 | 0.0212846 | 0.6585455 | 5.15494E+13 | 2.515341 | 6.70217E+12 | 0.0142467 | 0.4407929 | 2.515341 |
| 48 | 5696.94 | 574897 | 0.0824036 | 5/6/19 16:02 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5113225 | 6.70217E+12 | 0.0193804 | 0.5996296 | 2.5113225 |
| 49 | 5700.76 | 574897 | 0.0824508 | 5/6/19 16:07 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5130065 | 6.70217E+12 | 0.0145181 | 0.449191 | 2.5130065 |
| 50 | 5684.53 | 574897 | 0.0822241 | 5/6/19 16:12 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.505852 | 6.70217E+12 | 0.0157287 | 0.486646 | 2.505852 |
| 51 | 5689.74 | 574897 | 0.0822994 | 5/6/19 16:18 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5081486 | 6.70217E+12 | 0.0162324 | 0.5022305 | 2.5081486 |
| 52 | 5682.26 | 574897 | 0.0821912 | 5/6/19 16:23 | 0.0282033 | 0.8726101 | 5.16041E+13 | 2.5048513 | 6.70217E+12 | 0.0157041 | 0.4858849 | 2.5048513 |
| 53 | 5686.59 | 574898 | 0.0828228 | 5/6/19 16:28 | 0.0282033 | 0.8726101 | 5.12496E+13 | 2.5240987 | 6.70217E+12 | 0.0148626 | 0.4598488 | 2.5240987 |
| 54 | 5681.45 | 574899 | 0.0829971 | 5/6/19 16:33 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5294123 | 6.70217E+12 | 0.0141661 | 0.4382991 | 2.5294123 |
| 55 | 5684.86 | 574899 | 0.0830469 | 5/6/19 16:38 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5309305 | 6.70217E+12 | 0.0039202 | 0.121291 | 2.5309305 |
| 56 | 5679.5 | 574899 | 0.0829686 | 5/6/19 16:43 | 0.0282033 | 0.8726101 | 5.10957E+13 | 2.5285442 | 6.70217E+12 | 0.0059038 | 0.1826636 | 2.5285442 |
| 57 | 5681.53 | 574901 | 0.0832657 | 5/6/19 16:48 | 0.0282033 | 0.8726101 | 5.07124E+13 | 2.5485671 | 6.70217E+12 | 0.0056964 | 0.1762466 | 2.5485671 |
| 58 | 5689.99 | 574902 | 0.0837969 | 5/6/19 16:53 | 0.0282033 | 0.8726101 | 5.06841E+13 | 2.5537859 | 6.70217E+12 | 0.0098804 | 0.3056996 | 2.5537859 |
| 59 | 5691.01 | 574903 | 0.0831196 | 5/6/19 16:58 | 0.0282033 | 0.8726101 | 5.11063E+13 | 2.5331438 | 6.70217E+12 | 0.0072672 | 0.2248472 | 2.5331438 |
| 60 | 5699.02 | 574904 | 0.0827156 | 5/6/19 17:03 | 0.0245371 | 0.7591779 | 5.14281E+13 | 2.5208339 | 6.70217E+12 | 0.0100674 | 0.3114854 | 2.5208339 |
| 61 | 5700.57 | 574905 | 0.0827554 | 5/6/19 17:08 | 0.0245371 | 0.7591779 | 5.14174E+13 | 2.5220451 | 6.70217E+12 | 0.0086099 | 0.2663903 | 2.5220451 |
| 62 | 5695.51 | 574906 | 0.0812506 | 5/6/19 17:13 | 0.0245371 | 0.7591779 | 5.23232E+13 | 2.4761856 | 6.70217E+12 | 0.0053846 | 0.1665995 | 2.4761856 |
| 63 | 5694.8 | 574907 | 0.0809439 | 5/6/19 17:18 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4668388 | 6.70217E+12 | 0.0017196 | 0.0532044 | 2.4668388 |
| 64 | 5695.29 | 574907 | 0.0809509 | 5/6/19 17:23 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.467051 | 6.70217E+12 | 0.0048459 | 0.1499321 | 2.467051 |
| 65 | 5711.94 | 574907 | 0.0811875 | 5/6/19 17:28 | 0.0245371 | 0.7591779 | 5.25149E+13 | 2.4742634 | 6.70217E+12 | 0.0072046 | 0.2229103 | 2.4742634 |
| 66 | 5717.52 | 574908 | 0.0815164 | 5/6/19 17:33 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4842862 | 6.70217E+12 | 0.0173188 | 0.5358437 | 2.4842862 |
| 67 | 5717.19 | 574908 | 0.0815117 | 5/6/19 17:38 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4841428 | 6.70217E+12 | 0.0107967 | 0.3340499 | 2.4841428 |
| 68 | 5709.94 | 574908 | 0.0814083 | 5/6/19 17:43 | 0.0245371 | 0.7591779 | 5.23541E+13 | 2.4809927 | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|------------|------------|-----------|
| 95 | 5745.01 | 574916 | 0.086617 | 5/6/19 20:00 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6397319 | 6.70217E+12 | -0.001813 | -0.0560942 | 2.6397319 |
| 96 | 5763.99 | 574916 | 0.0869032 | 5/6/19 20:05 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6484528 | 6.70217E+12 | -0.0003708 | -0.0114726 | 2.6484528 |
| 97 | 5769.68 | 574916 | 0.086989 | 5/6/19 20:10 | 0.0241251 | 0.7464306 | 4.9508E+13 | 2.6510673 | 6.70217E+12 | 0.0062241 | 0.1925737 | 2.6510673 |
| 98 | 5769.14 | 574917 | 0.0882187 | 5/6/19 20:15 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6885453 | 6.70217E+12 | 0.0116013 | 0.3589442 | 2.6885453 |
| 99 | 5755.39 | 574917 | 0.0880085 | 5/6/19 20:20 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6821375 | 6.70217E+12 | 0.0009813 | 0.0303614 | 2.6821375 |
| 100 | 5754.1 | 574917 | 0.0879887 | 5/6/19 20:25 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6815363 | 6.70217E+12 | -0.0161407 | -0.4993933 | 2.6815363 |
| 101 | 5771.1 | 574917 | 0.0882487 | 5/6/19 20:30 | 0.0241251 | 0.7464306 | 4.88133E+13 | 2.6894587 | 6.70217E+12 | -0.0174708 | -0.5405466 | 2.6894587 |
| 102 | 5764.05 | 574918 | 0.0890788 | 5/6/19 20:35 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.714756 | 6.70217E+12 | -0.0175085 | -0.541713 | 2.714756 |
| 103 | 5752.2 | 574918 | 0.088956 | 5/6/19 20:40 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7091749 | 6.70217E+12 | -0.0038463 | -0.1190045 | 2.7091749 |
| 104 | 5755.49 | 574918 | 0.0889465 | 5/6/19 20:45 | 0.0241251 | 0.7464306 | 4.82994E+13 | 2.7107244 | 6.70217E+12 | -0.0004318 | -0.0133599 | 2.7107244 |
| 105 | 5762.02 | 574919 | 0.0902091 | 5/6/19 20:50 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7492027 | 6.70217E+12 | 0.0004104 | 0.0126978 | 2.7492027 |
| 106 | 5760.7 | 574919 | 0.0901884 | 5/6/19 20:55 | 0.0241251 | 0.7464306 | 4.76774E+13 | 2.7485729 | 6.70217E+12 | -0.0009508 | -0.0294178 | 2.7485729 |
| 107 | 5762.49 | | 0.0902164 | 5/6/19 21:02 | 0.0175071 | 0.5416697 | 4.76774E+13 | 2.749427 | | 0.0007073 | 0.0218839 | 2.749427 |
| 108 | 5774.99 | 574920 | 0.1001885 | 5/6/19 21:19 | 0.0175071 | 0.5242793 | 4.74463E+13 | 2.9553058 | 6.70217E+12 | -0.0013119 | -0.039287 | 2.9553058 |
| 109 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 110 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:44 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 111 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 112 | 5844.99 | 574922 | 0.1031216 | 5/6/19 21:45 | 0.0175071 | 0.5242793 | 4.66555E+13 | 3.0418256 | 6.70217E+12 | -0.0118157 | -0.3538408 | 3.0418256 |
| 113 | 5843.89 | 574923 | 0.1041911 | 5/6/19 21:52 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0733748 | 6.70217E+12 | 0.0001052 | 0.0031504 | 3.0733748 |
| 114 | 5889.14 | 574923 | 0.1049979 | 5/6/19 21:57 | 0.0175071 | 0.5242793 | 4.61679E+13 | 3.0971724 | 6.70217E+12 | 0.0047856 | 0.1433128 | 3.0971724 |
| 115 | 5938.96 | 574925 | 0.1060149 | 5/6/19 22:02 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1271721 | 6.70217E+12 | 0.0012328 | 0.0369183 | 3.1271721 |
| 116 | 5924.06 | 574925 | 0.105749 | 5/6/19 22:07 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1193265 | 6.70217E+12 | -0.0183554 | -0.549683 | 3.1193265 |
| 117 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:15 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 118 | 5904.4 | 574925 | 0.105398 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1089744 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1089744 |
| 119 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 120 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 121 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 122 | 5906.55 | 574925 | 0.1054364 | 5/6/19 22:16 | 0.0137884 | 0.4129166 | 4.61118E+13 | 3.1101065 | 6.70217E+12 | -0.0038279 | -0.1146328 | 3.1101065 |
| 123 | 5900.68 | 574927 | 0.1057464 | 5/6/19 22:23 | 0.0137884 | 0.4129166 | 4.59309E+13 | 3.119251 | 6.70217E+12 | 0.0035913 | 0.1075475 | 3.119251 |
| 124 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 125 | 5904.02 | 574929 | 0.1030516 | 5/6/19 22:30 | 0.0137884 | 0.4129166 | 4.71587E+13 | 3.0397615 | 6.70217E+12 | -0.0015977 | -0.0478458 | 3.0397615 |
| 126 | 5898.4 | 574930 | 0.1031447 | 5/6/19 22:35 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0425064 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0425064 |
| 127 | 5893.05 | 574930 | 0.1030511 | 5/6/19 22:37 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.0397468 | 6.70217E+12 | -0.0289922 | -0.8682197 | 3.0397468 |
| 128 | 5897.36 | 574930 | 0.1031265 | 5/6/19 22:42 | 0.0137884 | 0.4129166 | 4.70713E+13 | 3.04197 | 6.70217E+12 | -0.0236925 | -0.7095114 | 3.04197 |
| 129 | 5899.22 | 574931 | 0.1032757 | 5/6/19 22:47 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.046371 | 6.70217E+12 | -0.0155618 | -0.466024 | 3.046371 |
| 130 | 5901.5 | 574931 | 0.1033156 | 5/6/19 22:52 | 0.0137884 | 0.4129166 | 4.70181E+13 | 3.0475484 | 6.70217E+12 | -0.0215767 | -0.6461502 | 3.0475484 |
| 131 | 5895.01 | 574932 | 0.1028817 | 5/6/19 22:57 | 0.0137884 | 0.4129166 | 4.71645E+13 | 3.0347496 | 6.70217E+12 | -0.0188905 | -0.5657075 | 3.0347496 |
| 132 | 5882.85 | 574943 | 0.1003326 | 5/7/19 0:02 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9595589 | 6.70217E+12 | -0.0022652 | -0.0794186 | 2.9595589 |
| 133 | 5891.99 | 574943 | 0.1004885 | 5/7/19 0:07 | 0.0098383 | 0.2946243 | 4.8263E+13 | 2.9641571 | 6.70217E+12 | 0.0003922 | 0.0117451 | 2.9641571 |
| 134 | 5896.7 | 574944 | 0.1020246 | 5/7/19 0:12 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0094662 | 6.70217E+12 | 0.0109642 | 0.3283412 | 3.0094662 |
| 135 | 5903.84 | 574944 | 0.1021481 | 5/7/19 0:17 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0311102 | 6.70217E+12 | 0.0001877 | 0.005621 | 3.0311102 |
| 136 | 5911.06 | 574944 | 0.102273 | 5/7/19 0:22 | 0.0098383 | 0.2946243 | 4.75743E+13 | 3.0167951 | 6.70217E+12 | -0.0190565 | -0.5706787 | 3.0167951 |
| 137 | 5885.39 | 574945 | 0.1028414 | 5/7/19 0:27 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0335618 | 6.70217E+12 | -0.005721 | -0.1713249 | 3.0335618 |
| 138 | 5895.99 | 574945 | 0.1030267 | 5/7/19 0:32 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0390254 | 6.70217E+12 | 0.005387 | 0.1613227 | 3.0390254 |
| 139 | 5897.07 | 574945 | 0.1030455 | 5/7/19 0:37 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0395821 | 6.70217E+12 | 0.0090961 | 0.2723979 | 3.0395821 |
| 140 | 5898.51 | 574945 | 0.1030707 | 5/7/19 0:42 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0403243 | 6.70217E+12 | 0.0000416 | 0.0012458 | 3.0403243 |
| 141 | 5901.99 | 574945 | 0.1031315 | 5/7/19 0:47 | 0.0098383 | 0.2946243 | 4.71059E+13 | 3.0421181 | 6.70217E+12 | 0.0002217 | 0.0066392 | 3.0421181 |
| 142 | 5889.59 | 574946 | 0.1043197 | 5/7/19 0:52 | 0.0098383 | 0.2946243 | 4.64716E+13 | 3.0771656 | 6.70217E+12 | -0.0026672 | -0.0798737 | 3.0771656 |
| 143 | 5889.01 | 574947 | 0.1040736 | 5/7/19 0:57 | 0.0098383 | 0.2946243 | 4.65768E+13 | 3.0699085 | 6.70217E+12 | -0.0003307 | -0.0099034 | 3.0699085 |
| 144 | 5877.69 | 574947 | 0.1038736 | 5/7/19 1:02 | 0.0105202 | 0.3150449 | 4.65768E+13 | 3.0640074 | 6.70217E+12 | -0.0003011 | -0.0090169 | 3.0640074 |
| 145 | 5889.43 | 574948 | 0.1042298 | 5/7/19 1:07 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0745154 | 6.70217E+12 | -0.0001362 | -0.0040787 | 3.0745154 |
| 146 | 5887.99 | 574948 | 0.1042043 | 5/7/19 1:12 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0737637 | 6.70217E+12 | 0.0091898 | 0.2752039 | 3.0737637 |
| 147 | 5867.4 | 574948 | 0.1038399 | 5/7/19 1:17 | 0.0105202 | 0.3150449 | 4.65104E+13 | 3.0630149 | 6.70217E+12 | 0.0091883 | 0.275159 | 3.0630149 |
| 148 | 5883.85 | 574950 | 0.1044213 | 5/7/19 1:22 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0801634 | 6.70217E+12 | 0.0098517 | 0.2950256 | 3.0801634 |
| 149 | 5871.24 | 574950 | 0.1041975 | 5/7/19 1:27 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0735621 | 6.70217E+12 | 0.0110652 | 0.3313659 | 3.0735621 |
| 150 | 5870.35 | 574950 | 0.1041817 | 5/7/19 1:32 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0730962 | 6.70217E+12 | 0.0117356 | 0.3514421 | 3.0730962 |
| 151 | 5880.51 | 574950 | 0.104362 | 5/7/19 1:37 | 0.0105202 | 0.3150449 | 4.63811E+13 | 3.0784149 | 6.70217E+12 | 0.0114298 | 0.3422844 | 3.0784149 |
| 152 | 5887.56 | 574951 | 0.1056193 | 5/7/19 1:42 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1155019 | 6.70217E+12 | 0.0158031 | 0.4732502 | 3.1155019 |
| 153 | 5888.94 | 574951 | 0.1056441 | 5/7/19 1:47 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1162321 | 6.70217E+12 | 0.0139082 | 0.4165042 | 3.1162321 |
| 154 | 5890.07 | 574951 | 0.1056643 | 5/7/19 1:52 | 0.0105202 | 0.3150449 | 4.58839E+13 | 3.1168301 | 6.70217E+12 | 0.0141407 | 0.4234668 | 3.1168301 |
| 155 | 5887.93 | 574952 | 0.1061226 | 5/7/19 1:57 | 0.0105202 | 0.3150449 | 4.56692E+13 | 3.1303483 | 6.70217E+12 | 0.0129154 | 0.3867732 | 3.1303483 |
| 156 | 5879.77 | 574953 | 0.1056897 | 5/7/19 2:02 | 0.011378 | 0.3407332 | 4.57927E+13 | 3.117579 | 6.70217E+12 | 0.0142018 | 0.4252966 | 3.117579 |
| 157 | 5880.52 | 574954 | 0.1043159 | 5/7/19 2:07 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0770561 | 6.70217E+12 | 0.0139436 | 0.4175643 | 3.0770561 |
| 158 | 5875.01 | 574954 | 0.1042182 | 5/7/19 2:12 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.074173 | 6.70217E+12 | 0.0105143 | 0.3148682 | 3.074173 |
| 159 | 5873.6 | 574954 | 0.1041932 | 5/7/19 2:17 | 0.011378 | 0.3407332 | 4.64017E+13 | 3.0734352 | 6.70217E+12 | 0.0094361 | 0.2825797 | 3.0734352 |
| 160 | 5871.85 | 574955 | 0.1044686 | 5/7/19 2:22 | 0.011378 | 0.3407332 | 4.62656E+13 | 3.0815582 | 6.70217E+12 | 0.0088951 | 0.2663786 | 3.0815582 |
| 161 | 5871.01 | 574956 | 0.103617 | 5/7/19 2:27 | 0.011378 | 0.3407332 | 4.66391E+13 | 3.0564397 | 6.70217E+12 | 0.0093072 | 0.2787196 | 3.0564397 |
| 162 | 5859.85 | 574956 | 0.1034201 | 5/7/1 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|------------|------------|------------|
| 189 | 5915.11 | 574965 | 0.1084223 | 5/7/19 4:47 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1981835 | 6.70217E+12 | 0.0166224 | 0.4977855 | 3.1981835 |
| 190 | 5909.7 | 574965 | 0.1083231 | 5/7/19 4:52 | 0.0132424 | 0.3965657 | 4.49069E+13 | 3.1952584 | 6.70217E+12 | 0.0144629 | 0.4331156 | 3.1952584 |
| 191 | 5906.81 | 574966 | 0.1085559 | 5/7/19 4:57 | 0.0132424 | 0.3965657 | 4.47887E+13 | 3.2021242 | 6.70217E+12 | 0.014704 | 0.4403358 | 3.2021242 |
| 192 | 5914.74 | 574966 | 0.1087016 | 5/7/19 5:02 | 0.0163996 | 0.4911134 | 4.47887E+13 | 3.2064231 | 6.70217E+12 | 0.0082133 | 0.245961 | 3.2064231 |
| 193 | 5917.1 | 574967 | 0.109481 | 5/7/19 5:07 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2294129 | 6.70217E+12 | 0.0137796 | 0.4126531 | 3.2294129 |
| 194 | 5912.39 | 574967 | 0.1093939 | 5/7/19 5:12 | 0.0163996 | 0.4911134 | 4.44875E+13 | 3.2268423 | 6.70217E+12 | 0.0156701 | 0.4692673 | 3.2268423 |
| 195 | 5894.35 | 574968 | 0.1094478 | 5/7/19 5:17 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2284315 | 6.70217E+12 | 0.0146488 | 0.4386827 | 3.2284315 |
| 196 | 5898.35 | 574968 | 0.109522 | 5/7/19 5:22 | 0.0163996 | 0.4911134 | 4.433E+13 | 3.2306223 | 6.70217E+12 | 0.0145908 | 0.4369458 | 3.2306223 |
| 197 | 5902.16 | 574969 | 0.1079698 | 5/7/19 5:27 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1848344 | 6.70217E+12 | 0.0155564 | 0.4658623 | 3.1848344 |
| 198 | 5900.85 | 574969 | 0.1079458 | 5/7/19 5:32 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1841275 | 6.70217E+12 | 0.0134736 | 0.4034894 | 3.1841275 |
| 199 | 5900.34 | 574969 | 0.1079365 | 5/7/19 5:37 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1838523 | 6.70217E+12 | 0.0130804 | 0.3917144 | 3.1838523 |
| 200 | 5898.32 | 574969 | 0.1078995 | 5/7/19 5:42 | 0.0163996 | 0.4911134 | 4.49963E+13 | 3.1827623 | 6.70217E+12 | 0.0152049 | 0.4553361 | 3.1827623 |
| 201 | 5896.02 | 574970 | 0.1092694 | 5/7/19 5:47 | 0.0163996 | 0.4911134 | 4.44149E+13 | 3.2231712 | 6.70217E+12 | 0.0153738 | 0.4603941 | 3.2231712 |
| 202 | 5901.06 | 574971 | 0.1070272 | 5/7/19 5:52 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1570311 | 6.70217E+12 | 0.0162384 | 0.486286 | 3.1570311 |
| 203 | 5889.23 | 574971 | 0.1068126 | 5/7/19 5:57 | 0.0163996 | 0.4911134 | 4.53842E+13 | 3.1507021 | 6.70217E+12 | 0.0142726 | 0.4274168 | 3.1507021 |
| 204 | 5888.81 | 574971 | 0.106805 | 5/7/19 6:02 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1504774 | 6.70217E+12 | 0.0140196 | 0.4198403 | 3.1504774 |
| 205 | 5888.88 | 574971 | 0.1068063 | 5/7/19 6:07 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1505149 | 6.70217E+12 | 0.0128572 | 0.3850303 | 3.1505149 |
| 206 | 5894.99 | 574971 | 0.1069171 | 5/7/19 6:12 | 0.0219988 | 0.6587907 | 4.53842E+13 | 3.1537837 | 6.70217E+12 | 0.0139901 | 0.4189569 | 3.1537837 |
| 207 | 5888.93 | 574973 | 0.1083283 | 5/7/19 6:17 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1954116 | 6.70217E+12 | 0.0169327 | 0.5070779 | 3.1954116 |
| 208 | 5883.23 | 574973 | 0.1082235 | 5/7/19 6:22 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1923187 | 6.70217E+12 | 0.0161834 | 0.4846389 | 3.1923187 |
| 209 | 5874.07 | 574973 | 0.108055 | 5/7/19 6:27 | 0.0219988 | 0.6587907 | 4.47469E+13 | 3.1873483 | 6.70217E+12 | 0.0160255 | 0.4799103 | 3.1873483 |
| 210 | 5873.01 | 574975 | 0.1081041 | 5/7/19 6:32 | 0.0219988 | 0.6587907 | 4.47185E+13 | 3.1887959 | 6.70217E+12 | 0.0161849 | 0.4846838 | 3.1887959 |
| 211 | 5877.1 | 574977 | 0.1051264 | 5/7/19 6:37 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1009613 | 6.70217E+12 | 0.0160886 | 0.4817999 | 3.1009613 |
| 212 | 5883.19 | 574977 | 0.1052353 | 5/7/19 6:42 | 0.0219988 | 0.6587907 | 4.60172E+13 | 3.1041746 | 6.70217E+12 | 0.01829 | 0.5477245 | 3.1041746 |
| 213 | 5883.91 | 574979 | 0.1039877 | 5/7/19 6:47 | 0.0219988 | 0.6587907 | 4.6575E+13 | 3.0673739 | 6.70217E+12 | 0.0197193 | 0.5905273 | 3.0673739 |
| 214 | 5887.01 | 574980 | 0.1024096 | 5/7/19 6:52 | 0.0219988 | 0.6587907 | 4.73176E+13 | 3.0208243 | 6.70217E+12 | 0.0172624 | 0.5169513 | 3.0208243 |
| 215 | 5890.93 | 574981 | 0.1023627 | 5/7/19 6:57 | 0.0219988 | 0.6587907 | 4.73708E+13 | 3.0194404 | 6.70217E+12 | 0.0219934 | 0.658629 | 3.0194404 |
| 216 | 5891.99 | 574981 | 0.1023811 | 5/7/19 7:02 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0199837 | 6.70217E+12 | 0.0190854 | 0.5715441 | 3.0199837 |
| 217 | 5901.6 | 574981 | 0.1025481 | 5/7/19 7:07 | 0.0252156 | 0.7551232 | 4.73708E+13 | 3.0249094 | 6.70217E+12 | 0.022021 | 0.6594555 | 3.0249094 |
| 218 | 5900.12 | 574982 | 0.1027094 | 5/7/19 7:12 | 0.0252156 | 0.7551232 | 4.72845E+13 | 3.0266666 | 6.70217E+12 | 0.019538 | 0.585098 | 3.0266666 |
| 219 | 5902.76 | 574983 | 0.1021815 | 5/7/19 7:17 | 0.0252156 | 0.7551232 | 4.75501E+13 | 3.0140942 | 6.70217E+12 | 0.0208005 | 0.6229056 | 3.0140942 |
| 220 | 5901.94 | 574985 | 0.1025203 | 5/7/19 7:22 | 0.0252156 | 0.7551232 | 4.73864E+13 | 3.0240881 | 6.70217E+12 | 0.0333844 | 0.9997515 | 3.0240881 |
| 221 | 5902.21 | 574986 | 0.1024856 | 5/7/19 7:27 | 0.0252156 | 0.7551232 | 4.74046E+13 | 3.0230648 | 6.70217E+12 | 0.0226755 | 0.6790556 | 3.0230648 |
| 222 | 5897.09 | 574987 | 0.1012514 | 5/7/19 7:32 | 0.0252156 | 0.7551232 | 4.79408E+13 | 2.9866604 | 6.70217E+12 | 0.0258656 | 0.7745885 | 2.9866604 |
| 223 | 5891.39 | 574988 | 0.1001624 | 5/7/19 7:37 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9545379 | 6.70217E+12 | 0.0217027 | 0.6499235 | 2.9545379 |
| 224 | 5896.98 | 574988 | 0.1002575 | 5/7/19 7:42 | 0.0252156 | 0.7551232 | 4.84152E+13 | 2.9573413 | 6.70217E+12 | 0.0181457 | 0.5434032 | 2.9573413 |
| 225 | 5915.01 | 574989 | 0.0992602 | 5/7/19 7:47 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9279253 | 6.70217E+12 | 0.0175618 | 0.5259174 | 2.9279253 |
| 226 | 5909.89 | 574989 | 0.0991743 | 5/7/19 7:52 | 0.0252156 | 0.7551232 | 4.90511E+13 | 2.9253909 | 6.70217E+12 | 0.0176235 | 0.5277651 | 2.9253909 |
| 227 | 5907.41 | 574990 | 0.0997661 | 5/7/19 7:57 | 0.0252156 | 0.7551232 | 4.87396E+13 | 2.9428486 | 6.70217E+12 | 0.02076065 | 6.2171227 | 6.2171227 |
| 228 | 5909.98 | 574990 | 0.0998905 | 5/7/19 8:02 | 0.0276548 | 0.8281691 | 4.87396E+13 | 2.9441289 | 6.70217E+12 | 0.03509108 | 10.5086088 | 10.5086088 |
| 229 | 5885.9 | 574991 | 0.1001084 | 5/7/19 8:07 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9529431 | 6.70217E+12 | 1.0618156 | 31.7978378 | 31.7978378 |
| 230 | 5894.01 | 574991 | 0.1002463 | 5/7/19 8:12 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9570118 | 6.70217E+12 | 0.3477068 | 10.4126596 | 10.4126596 |
| 231 | 5901.61 | 574991 | 0.1003756 | 5/7/19 8:17 | 0.0276548 | 0.8281691 | 4.83962E+13 | 2.9608247 | 6.70217E+12 | 0.2233212 | 6.6877255 | 6.6877255 |
| 232 | 5901.01 | 574993 | 0.0990295 | 5/7/19 8:22 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9211197 | 6.70217E+12 | 0.1839307 | 5.5081114 | 5.5081114 |
| 233 | 5896.99 | 574993 | 0.098962 | 5/7/19 8:27 | 0.0276548 | 0.8281691 | 4.9049E+13 | 2.9191298 | 6.70217E+12 | 0.2097637 | 6.2817236 | 6.2817236 |
| 234 | 5903.12 | 574994 | 0.0985656 | 5/7/19 8:32 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9074343 | 6.70217E+12 | 0.0304959 | 0.9132506 | 2.9074343 |
| 235 | 5904.99 | 574994 | 0.0985968 | 5/7/19 8:37 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9083554 | 6.70217E+12 | 0.0229099 | 0.6860751 | 2.9083554 |
| 236 | 5928.02 | 574994 | 0.0989813 | 5/7/19 8:42 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9196982 | 6.70217E+12 | 0.023268 | 0.696799 | 2.9196982 |
| 237 | 5918.93 | 574994 | 0.0988295 | 5/7/19 8:47 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9152212 | 6.70217E+12 | 0.0200853 | 0.6014878 | 2.9152212 |
| 238 | 5920.48 | 574994 | 0.0988554 | 5/7/19 8:52 | 0.0276548 | 0.8281691 | 4.92975E+13 | 2.9159846 | 6.70217E+12 | 0.02447 | 0.7327949 | 2.9159846 |
| 239 | 5927.27 | 574996 | 0.1000578 | 5/7/19 8:57 | 0.0276548 | 0.8281691 | 4.8761E+13 | 2.9514506 | 6.70217E+12 | 0.0185494 | 0.5554927 | 2.9514506 |
| 240 | 5970.03 | 574997 | 0.0973284 | 5/7/19 9:02 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8709404 | 6.70217E+12 | 0.0182697 | 0.5471166 | 2.8709404 |
| 241 | 5896.92 | 574997 | 0.0961365 | 5/7/19 9:07 | 0.0268411 | 0.8038015 | 5.049E+13 | 2.8357824 | 6.70217E+12 | 0.0189375 | 0.567115 | 2.8357824 |
| 242 | 5876.01 | 574998 | 0.0954835 | 5/7/19 9:12 | 0.0268411 | 0.8038015 | 5.06789E+13 | 2.8151949 | 6.70217E+12 | 0.0203296 | 0.6088038 | 2.8151949 |
| 243 | 5818.78 | 574999 | 0.0935121 | 5/7/19 9:17 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.758369 | 6.70217E+12 | 0.0194987 | 0.5839211 | 2.758369 |
| 244 | 5836.61 | 574999 | 0.0937986 | 5/7/19 9:22 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7668213 | 6.70217E+12 | 0.0190273 | 0.5698042 | 2.7668213 |
| 245 | 5852.94 | 574999 | 0.094061 | 5/7/19 9:27 | 0.0268411 | 0.8038015 | 5.12192E+13 | 2.7745624 | 6.70217E+12 | 0.0201623 | 0.6037937 | 2.7745624 |
| 246 | 5843.39 | 575000 | 0.0949282 | 5/7/19 9:32 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8001417 | 6.70217E+12 | 0.0195915 | 0.5867001 | 2.8001417 |
| 247 | 5840.9 | 575000 | 0.0948878 | 5/7/19 9:37 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.7989485 | 6.70217E+12 | 0.0208798 | 0.6252804 | 2.7989485 |
| 248 | 5844.44 | 575000 | 0.0949453 | 5/7/19 9:42 | 0.0268411 | 0.8038015 | 5.06685E+13 | 2.8006448 | 6.70217E+12 | 0.0195936 | 0.5975438 | 2.8006448 |
| 249 | 5831.94 | 575001 | 0.0948603 | 5/7/19 9:47 | 0.0268411 | 0.8038015 | 5.06054E+13 | 2.7981392 | 6.70217E+12 | 0.0196606 | 0.5887694 | 2.7981392 |
| 250 | 5840.78 | 575003 | 0.0941941 | 5/7/19 9:52 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7784869 | 6.70217E+12 | 0.0187964 | 0.5628895 | 2.7784869 |
| 251 | 5839.47 | 575003 | 0.094173 | 5/7/19 9:57 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7778637 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7778637 |
| 252 | 5836.55 | 575003 | 0.0941259 | 5/7/19 9:58 | 0.0268411 | 0.8038015 | 5.10406E+13 | 2.7764747 | 6.70217E+12 | 0.0188057 | 0.563168 | 2.7764747 |
| 253 | 5843.59 | 575003 | 0.0942394 | 5/7/19 10:03 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7798236 | 6.70217E+12 | 0.0202762 | 0.6072046 | 2.7798236 |
| 254 | 5851.93 | 575003 | 0.0943739 | 5/7/19 10:08 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.783791 | 6.70217E+12 | 0.0195808 | 0.5863797 | 2.783791 |
| 255 | 5840.6 | 575003 | 0.0941912 | 5/7/19 10:13 | 0.0287164 | 0.8599605 | 5.10406E+13 | 2.7784013 | 6.70217E+12 | 0.0202654 | 0.6068812 | 2.7784013 |
| 256 | 5841.73 | 575003 | 0.0942094 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|
| 283 | 5888.74 | 575011 | 0.1032466 | 5/7/19 11:58 | 0.0273473 | 0.8189605 | 4.69478E+13 | 3.0455122 | 6.70217E+12 | 0.0189953 | 0.5688459 | 3.0455122 |
| 284 | 5894.74 | 575011 | 0.1033518 | 5/7/19 12:03 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0486153 | 6.70217E+12 | 0.0201972 | 0.6048388 | 3.0486153 |
| 285 | 5895.72 | 575011 | 0.1033689 | 5/7/19 12:08 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0491221 | 6.70217E+12 | 0.0246114 | 0.7370294 | 3.0491221 |
| 286 | 5907.12 | 575011 | 0.1035688 | 5/7/19 12:13 | 0.0270574 | 0.8102789 | 4.69478E+13 | 3.0550179 | 6.70217E+12 | 0.0195085 | 0.5842145 | 3.0550179 |
| 287 | 5908.19 | 575013 | 0.1040015 | 5/7/19 12:18 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0677806 | 6.70217E+12 | 0.0177224 | 0.5307268 | 3.0677806 |
| 288 | 5895.99 | 575013 | 0.1037867 | 5/7/19 12:23 | 0.0270574 | 0.8102789 | 4.67609E+13 | 3.0614459 | 6.70217E+12 | 0.0163822 | 0.4905893 | 3.0614459 |
| 289 | 5898.02 | 575014 | 0.1043706 | 5/7/19 12:27 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0786681 | 6.70217E+12 | 0.0162962 | 0.4880169 | 3.0786681 |
| 290 | 5895.6 | 575014 | 0.1043278 | 5/7/19 12:32 | 0.0270574 | 0.8102789 | 4.65154E+13 | 3.0774049 | 6.70217E+12 | 0.0164602 | 0.4929281 | 3.0774049 |
| 291 | 5887.34 | 575016 | 0.1041844 | 5/7/19 12:37 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0731761 | 6.70217E+12 | 0.0200409 | 0.6001582 | 3.0731761 |
| 292 | 5889.4 | 575016 | 0.1042209 | 5/7/19 12:42 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0742514 | 6.70217E+12 | 0.0215114 | 0.6441947 | 3.0742514 |
| 293 | 5893.65 | 575016 | 0.1042961 | 5/7/19 12:47 | 0.0270574 | 0.8102789 | 4.65141E+13 | 3.0764699 | 6.70217E+12 | 0.020945 | 0.6272329 | 3.0764699 |
| 294 | 5893.83 | 575018 | 0.1033386 | 5/7/19 12:52 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0482275 | 6.70217E+12 | 0.0215906 | 0.6465665 | 3.0482275 |
| 295 | 5890.09 | 575018 | 0.103273 | 5/7/19 12:57 | 0.0270574 | 0.8102789 | 4.69465E+13 | 3.0462932 | 6.70217E+12 | 0.0199465 | 0.5973312 | 3.0462932 |
| 296 | 5887.86 | 575018 | 0.1032339 | 5/7/19 13:02 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0451399 | 6.70217E+12 | 0.0182097 | 0.5453198 | 3.0451399 |
| 297 | 5877.45 | 575018 | 0.1030514 | 5/7/19 13:07 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0397559 | 6.70217E+12 | 0.0171154 | 0.5125492 | 3.0397559 |
| 298 | 5880.76 | 575018 | 0.1031095 | 5/7/19 13:12 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0414678 | 6.70217E+12 | 0.0158291 | 0.4740288 | 3.0414678 |
| 299 | 5885.01 | 575018 | 0.103184 | 5/7/19 13:17 | 0.0260477 | 0.7800418 | 4.69465E+13 | 3.0436659 | 6.70217E+12 | 0.0156699 | 0.4700698 | 3.0436659 |
| 300 | 5886.65 | 575019 | 0.105185 | 5/7/19 13:22 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.10269 | 6.70217E+12 | 0.0194576 | 0.5826903 | 3.10269 |
| 301 | 5886.81 | 575019 | 0.1051878 | 5/7/19 13:27 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.1027744 | 6.70217E+12 | 0.0237637 | 0.7116436 | 3.1027744 |
| 302 | 5886.02 | 575019 | 0.1051737 | 5/7/19 13:32 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.102358 | 6.70217E+12 | 0.034183 | 1.0236669 | 3.102358 |
| 303 | 5878.86 | 575019 | 0.1050458 | 5/7/19 13:37 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0985841 | 6.70217E+12 | 0.4823059 | 14.443454 | 14.443454 |
| 304 | 5879.94 | 575019 | 0.1050651 | 5/7/19 13:42 | 0.0260477 | 0.7800418 | 4.60663E+13 | 3.0991534 | 6.70217E+12 | 0.1343145 | 4.0222716 | 4.0222716 |
| 305 | 5872.78 | 575020 | 0.1055767 | 5/7/19 13:47 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1142442 | 6.70217E+12 | 0.0287544 | 0.8610984 | 3.1142442 |
| 306 | 5868.57 | 575020 | 0.105501 | 5/7/19 13:52 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1120117 | 6.70217E+12 | 0.0442637 | 1.3255503 | 3.1120117 |
| 307 | 5877.6 | 575020 | 0.1056633 | 5/7/19 13:57 | 0.0260477 | 0.7800418 | 4.57872E+13 | 3.1168002 | 6.70217E+12 | 0.0156508 | 0.4686893 | 3.1168002 |
| 308 | 5880.3 | 575021 | 0.1070192 | 5/7/19 14:02 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.156795 | 6.70217E+12 | 0.0212368 | 0.6359714 | 3.156795 |
| 309 | 5873.1 | 575021 | 0.1068882 | 5/7/19 14:07 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1529297 | 6.70217E+12 | 0.0135226 | 0.4049568 | 3.1529297 |
| 310 | 5856.76 | 575021 | 0.1065908 | 5/7/19 14:12 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1441577 | 6.70217E+12 | 0.0161145 | 0.4825756 | 3.1441577 |
| 311 | 5835.32 | 575021 | 0.1062006 | 5/7/19 14:17 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1326478 | 6.70217E+12 | 0.021294 | 0.6376843 | 3.1326478 |
| 312 | 5823.7 | 575021 | 0.1059891 | 5/7/19 14:22 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1264097 | 6.70217E+12 | 0.0232619 | 0.6966164 | 3.1264097 |
| 313 | 5823.9 | 575021 | 0.1059927 | 5/7/19 14:27 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1265171 | 6.70217E+12 | 0.0186602 | 0.5588108 | 3.1265171 |
| 314 | 5844.51 | 575021 | 0.1063678 | 5/7/19 14:32 | 0.025584 | 0.7661555 | 4.52279E+13 | 3.1375814 | 6.70217E+12 | 0.0221179 | 0.6623574 | 3.1375814 |
| 315 | 5852.73 | 575022 | 0.1090264 | 5/7/19 14:37 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2160024 | 6.70217E+12 | 0.0160534 | 0.4807458 | 3.2160024 |
| 316 | 5842.59 | 575022 | 0.1088375 | 5/7/19 14:42 | 0.025584 | 0.7661555 | 4.41871E+13 | 3.2104306 | 6.70217E+12 | 0.0139152 | 0.4167139 | 3.2104306 |
| 317 | 5844.51 | 575023 | 0.1093454 | 5/7/19 14:47 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.225412 | 6.70217E+12 | 0.0096897 | 0.2901742 | 3.225412 |
| 318 | 5842.77 | 575023 | 0.1093128 | 5/7/19 14:52 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2244517 | 6.70217E+12 | 0.0082441 | 0.2468833 | 3.2244517 |
| 319 | 5843.27 | 575023 | 0.1093222 | 5/7/19 14:57 | 0.025584 | 0.7661555 | 4.39963E+13 | 3.2247277 | 6.70217E+12 | 0.0080116 | 0.2399207 | 3.2247277 |
| 320 | 5849.85 | 575023 | 0.1094453 | 5/7/19 15:02 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.228359 | 6.70217E+12 | 0.0041722 | 0.1249375 | 3.228359 |
| 321 | 5844.11 | 575023 | 0.1093379 | 5/7/19 15:07 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2251913 | 6.70217E+12 | 0.0063173 | 0.1891821 | 3.2251913 |
| 322 | 5838.69 | 575023 | 0.1092365 | 5/7/19 15:12 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2222001 | 6.70217E+12 | 0.0074128 | 0.2219887 | 3.2222001 |
| 323 | 5843.57 | 575023 | 0.1093278 | 5/7/19 15:17 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2248932 | 6.70217E+12 | 0.0068169 | 0.2041434 | 3.2248932 |
| 324 | 5844.59 | 575023 | 0.1093469 | 5/7/19 15:22 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2254562 | 6.70217E+12 | 0.0173942 | 0.5208983 | 3.2254562 |
| 325 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:27 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0160868 | 0.481746 | 3.2284363 |
| 326 | 5849.99 | 575023 | 0.1094479 | 5/7/19 15:32 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2284363 | 6.70217E+12 | 0.0179579 | 0.5377792 | 3.2284363 |
| 327 | 5862.15 | 575023 | 0.1096754 | 5/7/19 15:37 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.235147 | 6.70217E+12 | 0.0185996 | 0.556996 | 3.235147 |
| 328 | 5861.7 | 575023 | 0.109667 | 5/7/19 15:42 | 0.0200751 | 0.6011823 | 4.39963E+13 | 3.2348987 | 6.70217E+12 | 0.0164337 | 0.4921345 | 3.2348987 |
| 329 | 5871.48 | 575024 | 0.1144475 | 5/7/19 15:47 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.3759101 | 6.70217E+12 | 0.0172669 | 0.5170861 | 3.3759101 |
| 330 | 5859.1 | 575024 | 0.1142061 | 5/7/19 15:52 | 0.0200751 | 0.6011823 | 4.22289E+13 | 3.368792 | 6.70217E+12 | 0.0085437 | 0.2558553 | 3.368792 |
| 331 | 5854.1 | 575025 | 0.1144044 | 5/7/19 15:57 | 0.0200751 | 0.6011823 | 4.21197E+13 | 3.3746406 | 6.70217E+12 | 0.0200752 | 0.6011853 | 3.3746406 |
| 332 | 5843.22 | 575026 | 0.1144995 | 5/7/19 16:02 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3774456 | 6.70217E+12 | 0.0220984 | 0.6617734 | 3.3774456 |
| 333 | 5853.43 | 575026 | 0.1146996 | 5/7/19 16:07 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3833471 | 6.70217E+12 | 0.0156725 | 0.4693391 | 3.3833471 |
| 334 | 5856.16 | 575026 | 0.1147531 | 5/7/19 16:12 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.384925 | 6.70217E+12 | 0.0214597 | 0.6426465 | 3.384925 |
| 335 | 5854.02 | 575026 | 0.1147111 | 5/7/19 16:17 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3836881 | 6.70217E+12 | 0.0239835 | 0.7182259 | 3.3836881 |
| 336 | 5850.81 | 575026 | 0.1146482 | 5/7/19 16:22 | 0.0216225 | 0.6475218 | 4.20066E+13 | 3.3818327 | 6.70217E+12 | 0.0167074 | 0.5003309 | 3.3818327 |
| 337 | 5854.62 | 575027 | 0.1163454 | 5/7/19 16:27 | 0.0216225 | 0.6475218 | 4.14207E+13 | 3.4318944 | 6.70217E+12 | 0.0156102 | 0.4674735 | 3.4318944 |
| 338 | 5855.8 | 575028 | 0.1157465 | 5/7/19 16:32 | 0.0216225 | 0.6475218 | 4.16435E+13 | 3.4142287 | 6.70217E+12 | 0.0163249 | 0.4888763 | 3.4142287 |
| 339 | 5856.74 | 575029 | 0.1142802 | 5/7/19 16:37 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.379755 | 6.70217E+12 | 0.0175314 | 0.5250073 | 3.379755 |
| 340 | 5868.02 | 575029 | 0.1145003 | 5/7/19 16:42 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3774679 | 6.70217E+12 | 0.0151098 | 0.4524881 | 3.3774679 |
| 341 | 5872.51 | 575029 | 0.1145879 | 5/7/19 16:47 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3800522 | 6.70217E+12 | 0.0146534 | 0.4388205 | 3.3800522 |
| 342 | 5871.99 | 575029 | 0.1145777 | 5/7/19 16:52 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3797529 | 6.70217E+12 | 0.0175759 | 0.5263396 | 3.3797529 |
| 343 | 5880.77 | 575029 | 0.1147491 | 5/7/19 16:57 | 0.0216225 | 0.6475218 | 4.21846E+13 | 3.3848064 | 6.70217E+12 | 0.0063504 | 0.1901733 | 3.3848064 |
| 344 | 5886.53 | 575029 | 0.1148614 | 5/7/19 17:02 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3881217 | 6.70217E+12 | 0.0061338 | 0.1836869 | 3.3881217 |
| 345 | 5889.98 | 575029 | 0.1149288 | 5/7/19 17:07 | 0.0204922 | 0.6136731 | 4.21846E+13 | 3.3901075 | 6.70217E+12 | 0.0028472 | 0.0852641 | 3.3901075 |
| 346 | 5885.6 | 575031 | 0.1147347 | 5/7/19 17:12 | 0.0204922 | 0.6136731 | 4.22212E+13 | 3.3846492 | 6.70217E+12 | 0.0111196 | 0.332995 | 3.3846492 |
| 347 | 5883.88 | 575032 | 0.1144564 | 5/7/19 17:17 | 0.0204922 | 0.6136731 | 4.23148E+13 | 3.3761744 | 6.70217E+12 | 0.0197231 | 0.5906411 | 3.3761744 |
| 348 | 5871.02 | 575033 | 0.114058 | 5/7/19 17:22 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.364421 | 6.70217E+12 | 0.013771 | 0.4123955 | 3.364421 |
| 349 | 5872.05 | 575033 | 0.114078 | 5/7/19 17:27 | 0.0204922 | 0.6136731 | 4.23698E+13 | 3.3650113 | 6.70217E+12 | 0.0099314 | 0.2974123 | 3.3650113 |
| | | | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|
| 377 | 5780.76 | 575048 | 0.1048412 | 5/7/19 19:48 | 0.0208363 | 0.6239777 | 4.5386E+13 | 3.0925494 | 6.70217E+12 | 0.0184615 | 0.5528604 | 3.0925494 |
| 378 | 5772.27 | 575049 | 0.1062044 | 5/7/19 19:53 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.1327595 | 6.70217E+12 | 0.0170593 | 0.5108692 | 3.1327595 |
| 379 | 5763.53 | 575049 | 0.1060035 | 5/7/19 19:58 | 0.0208363 | 0.6239777 | 4.47376E+13 | 3.128016 | 6.70217E+12 | 0.0193825 | 0.5804413 | 3.128016 |
| 380 | 5774.99 | 575049 | 0.1062544 | 5/7/19 20:03 | 0.0214057 | 0.6410294 | 4.47376E+13 | 3.1342357 | 6.70217E+12 | 0.0225229 | 0.6744858 | 3.1342357 |
| 381 | 5785.64 | 575050 | 0.1067275 | 5/7/19 20:08 | 0.0214057 | 0.6410294 | 4.46214E+13 | 3.1481898 | 6.70217E+12 | 0.0200782 | 0.6012752 | 3.1481898 |
| 382 | 5794.65 | 575050 | 0.1065264 | 5/7/19 20:13 | 0.0214057 | 0.6410294 | 4.47753E+13 | 3.1422582 | 6.70217E+12 | 0.0189119 | 0.5663484 | 3.1422582 |
| 383 | 5794.99 | 575052 | 0.105856 | 5/7/19 20:18 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1224836 | 6.70217E+12 | 0.0168789 | 0.5054668 | 3.1224836 |
| 384 | 5777.32 | 575052 | 0.1055332 | 5/7/19 20:23 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1129625 | 6.70217E+12 | 0.0188787 | 0.5653541 | 3.1129625 |
| 385 | 5779.44 | 575052 | 0.1055719 | 5/7/19 20:28 | 0.0214057 | 0.6410294 | 4.50615E+13 | 3.1141049 | 6.70217E+12 | 0.0185028 | 0.5540972 | 3.1141049 |
| 386 | 5784.49 | 575053 | 0.1069047 | 5/7/19 20:33 | 0.0214057 | 0.6410294 | 4.45386E+13 | 3.1534189 | 6.70217E+12 | 0.0168679 | 0.5051374 | 3.1534189 |
| 387 | 5792.26 | 575054 | 0.1071284 | 5/7/19 20:38 | 0.0214057 | 0.6410294 | 4.45053E+13 | 3.1600161 | 6.70217E+12 | 0.0100913 | 0.3022008 | 3.1600161 |
| 388 | 5794.99 | 575055 | 0.1078127 | 5/7/19 20:43 | 0.0214057 | 0.6410294 | 4.42437E+13 | 3.1802017 | 6.70217E+12 | 0.0159387 | 0.4773109 | 3.1802017 |
| 389 | 5798.99 | 575056 | 0.1065136 | 5/7/19 20:48 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1418807 | 6.70217E+12 | 0.0155694 | 0.4662516 | 3.1418807 |
| 390 | 5799.99 | 575056 | 0.1065319 | 5/7/19 20:53 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1424225 | 6.70217E+12 | 0.0120816 | 0.3618036 | 3.1424225 |
| 391 | 5792.47 | 575056 | 0.1063938 | 5/7/19 20:58 | 0.0214057 | 0.6410294 | 4.48142E+13 | 3.1383482 | 6.70217E+12 | 0.0121052 | 0.3625104 | 3.1383482 |
| 392 | 5783.99 | 575057 | 0.1071229 | 5/7/19 21:03 | 0.0187353 | 0.5610598 | 4.4444E+13 | 3.1598544 | 6.70217E+12 | 0.0062082 | 0.1859149 | 3.1598544 |
| 393 | 5798.01 | 575060 | 0.1064196 | 5/7/19 21:08 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1391083 | 6.70217E+12 | 0.0101617 | 0.304309 | 3.1391083 |
| 394 | 5804.99 | 575060 | 0.1065477 | 5/7/19 21:13 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1428873 | 6.70217E+12 | 0.0147359 | 0.4412911 | 3.1428873 |
| 395 | 5804.47 | 575060 | 0.1065382 | 5/7/19 21:18 | 0.0187353 | 0.5610598 | 4.48462E+13 | 3.1426058 | 6.70217E+12 | 0.0161425 | 0.4834141 | 3.1426058 |
| 396 | 5797.19 | 575061 | 0.1077196 | 5/7/19 21:23 | 0.0187353 | 0.5610598 | 4.42987E+13 | 3.1774565 | 6.70217E+12 | 0.0166747 | 0.4993517 | 3.1774565 |
| 397 | 5796.01 | 575062 | 0.1073179 | 5/7/19 21:28 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1656063 | 6.70217E+12 | 0.0162576 | 0.4868609 | 3.1656063 |
| 398 | 5796.91 | 575062 | 0.1073346 | 5/7/19 21:33 | 0.0187353 | 0.5610598 | 4.44555E+13 | 3.1660978 | 6.70217E+12 | 0.0154972 | 0.4640895 | 3.1660978 |
| 399 | 5804.49 | 575063 | 0.1082426 | 5/7/19 21:38 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1928815 | 6.70217E+12 | 0.0140195 | 0.4198373 | 3.1928815 |
| 400 | 5807.51 | 575063 | 0.1082989 | 5/7/19 21:43 | 0.0187353 | 0.5610598 | 4.41402E+13 | 3.1945427 | 6.70217E+12 | 0.0138085 | 0.4135185 | 3.1945427 |
| 401 | 5806.56 | 575064 | 0.1075881 | 5/7/19 21:48 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1733683 | 6.70217E+12 | 0.0123646 | 0.3702786 | 3.1733683 |
| 402 | 5797.78 | 575064 | 0.1074184 | 5/7/19 21:53 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1685699 | 6.70217E+12 | 0.0135325 | 0.4052533 | 3.1685699 |
| 403 | 5793.65 | 575064 | 0.1073419 | 5/7/19 21:58 | 0.0187353 | 0.5610598 | 4.44275E+13 | 3.1663128 | 6.70217E+12 | 0.0143717 | 0.4303845 | 3.1663128 |
| 404 | 5778.02 | 575065 | 0.1070536 | 5/7/19 22:03 | 0.0092857 | 0.2780758 | 4.44269E+13 | 3.1578114 | 6.70217E+12 | 0.0159167 | 0.4766521 | 3.1578114 |
| 405 | 5773.43 | 575066 | 0.1052104 | 5/7/19 22:08 | 0.0092857 | 0.2780758 | 4.51693E+13 | 3.1034402 | 6.70217E+12 | 0.0153253 | 0.4589417 | 3.1034402 |
| 406 | 5779.39 | 575067 | 0.1054664 | 5/7/19 22:13 | 0.0092857 | 0.2780758 | 4.51693E+13 | 3.1199096 | 6.70217E+12 | 0.0139439 | 0.4175733 | 3.1199096 |
| 407 | 5791.59 | 575067 | 0.105689 | 5/7/19 22:18 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1175577 | 6.70217E+12 | 0.0131096 | 0.3925888 | 3.1175577 |
| 408 | 5790.02 | 575067 | 0.1056603 | 5/7/19 22:23 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1167126 | 6.70217E+12 | 0.0122573 | 0.3670653 | 3.1167126 |
| 409 | 5782.94 | 575067 | 0.1055311 | 5/7/19 22:28 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1129015 | 6.70217E+12 | 0.0136306 | 0.408191 | 3.1129015 |
| 410 | 5775.43 | 575067 | 0.1053941 | 5/7/19 22:33 | 0.0092857 | 0.2780758 | 4.51062E+13 | 3.1088589 | 6.70217E+12 | 0.0135185 | 0.404834 | 3.1088589 |
| 411 | 5779.99 | 575068 | 0.1067775 | 5/7/19 22:38 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1496656 | 6.70217E+12 | 0.0130395 | 0.3904896 | 3.1496656 |
| 412 | 5785.55 | 575068 | 0.1068802 | 5/7/19 22:43 | 0.0092857 | 0.2780758 | 4.4557E+13 | 3.1526954 | 6.70217E+12 | 0.0132167 | 0.3957961 | 3.1526954 |
| 413 | 5776.9 | 575070 | 0.1064823 | 5/7/19 22:48 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1409571 | 6.70217E+12 | 0.0151927 | 0.4549707 | 3.1409571 |
| 414 | 5782.35 | 575070 | 0.1065827 | 5/7/19 22:53 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1439203 | 6.70217E+12 | 0.0127496 | 0.381808 | 3.1439203 |
| 415 | 5778.56 | 575070 | 0.1065129 | 5/7/19 22:58 | 0.0092857 | 0.2780758 | 4.46566E+13 | 3.1418596 | 6.70217E+12 | 0.01094 | 0.3276165 | 3.1418596 |
| 416 | 5807.88 | 575077 | 0.1057164 | 5/8/19 0:03 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1183659 | 6.70217E+12 | 0.0116913 | 0.3501155 | 3.1183659 |
| 417 | 5804.11 | 575077 | 0.1056478 | 5/8/19 0:08 | 0.010744 | 0.321747 | 4.52214E+13 | 3.1163417 | 6.70217E+12 | 0.0120928 | 0.3621391 | 3.1163417 |
| 418 | 5801.23 | 575078 | 0.1058179 | 5/8/19 0:13 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1213604 | 6.70217E+12 | 0.0121536 | 0.3639598 | 3.1213604 |
| 419 | 5791.66 | 575078 | 0.1056344 | 5/8/19 0:18 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1162113 | 6.70217E+12 | 0.0124538 | 0.3729498 | 3.1162113 |
| 420 | 5795.5 | 575078 | 0.1057134 | 5/8/19 0:23 | 0.010744 | 0.321747 | 4.51263E+13 | 3.1182774 | 6.70217E+12 | 0.0132227 | 0.3959758 | 3.1182774 |
| 421 | 5795.98 | 575079 | 0.1065412 | 5/8/19 0:28 | 0.010744 | 0.321747 | 4.47794E+13 | 3.1426942 | 6.70217E+12 | 0.0133711 | 0.4004199 | 3.1426942 |
| 422 | 5799.99 | 575081 | 0.102499 | 5/8/19 0:33 | 0.010744 | 0.321747 | 4.65775E+13 | 3.0234621 | 6.70217E+12 | 0.0173409 | 0.5193022 | 3.0234621 |
| 423 | 5804.41 | 575082 | 0.1023697 | 5/8/19 0:38 | 0.010744 | 0.321747 | 4.66719E+13 | 3.0196463 | 6.70217E+12 | 0.0172819 | 0.5175353 | 3.0196463 |
| 424 | 5804.82 | 575084 | 0.1015622 | 5/8/19 0:43 | 0.010744 | 0.321747 | 4.70463E+13 | 2.9958274 | 6.70217E+12 | 0.0175389 | 0.5252316 | 2.9958274 |
| 425 | 5802.49 | 575086 | 0.0989662 | 5/8/19 0:48 | 0.010744 | 0.321747 | 4.82609E+13 | 2.912535 | 6.70217E+12 | 0.0173835 | 0.5205779 | 2.912535 |
| 426 | 5795.31 | 575086 | 0.0988438 | 5/8/19 0:53 | 0.010744 | 0.321747 | 4.82609E+13 | 2.9156412 | 6.70217E+12 | 0.0147548 | 0.4418571 | 2.9156412 |
| 427 | 5799.55 | 575087 | 0.0990391 | 5/8/19 0:58 | 0.010744 | 0.321747 | 4.8201E+13 | 2.9214025 | 6.70217E+12 | 0.0135535 | 0.4058821 | 2.9214025 |
| 428 | 5810.52 | 575087 | 0.0992264 | 5/8/19 1:03 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9269284 | 6.70217E+12 | 0.0126685 | 0.3793793 | 2.9269284 |
| 429 | 5818.01 | 575087 | 0.0993543 | 5/8/19 1:08 | 0.0116366 | 0.3484774 | 4.8201E+13 | 2.9307013 | 6.70217E+12 | 0.0083531 | 0.2501475 | 2.9307013 |
| 430 | 5819.24 | 575089 | 0.0985572 | 5/8/19 1:13 | 0.0116366 | 0.3484774 | 4.86011E+13 | 2.9071881 | 6.70217E+12 | 0.0126493 | 0.3788044 | 2.9071881 |
| 431 | 5817.19 | 575090 | 0.0973429 | 5/8/19 1:18 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8713676 | 6.70217E+12 | 0.0126278 | 0.3781605 | 2.8713676 |
| 432 | 5820.91 | 575090 | 0.0974051 | 5/8/19 1:23 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8732038 | 6.70217E+12 | 0.0125071 | 0.374546 | 2.8732038 |
| 433 | 5831.99 | 575090 | 0.0975905 | 5/8/19 1:28 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8786729 | 6.70217E+12 | 0.0125147 | 0.3747735 | 2.8786729 |
| 434 | 5837.72 | 575090 | 0.0976864 | 5/8/19 1:33 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8815012 | 6.70217E+12 | 0.0030723 | 0.0920051 | 2.8815012 |
| 435 | 5825.57 | 575090 | 0.0974831 | 5/8/19 1:38 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.875504 | 6.70217E+12 | 0.0007008 | 0.0209866 | 2.875504 |
| 436 | 5834.9 | 575090 | 0.0976392 | 5/8/19 1:43 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8801093 | 6.70217E+12 | 0.002842 | 0.0851084 | 2.8801093 |
| 437 | 5839.94 | 575090 | 0.0977235 | 5/8/19 1:49 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.882597 | 6.70217E+12 | 0.0029206 | 0.0874622 | 2.882597 |
| 438 | 5834.68 | 575090 | 0.0976355 | 5/8/19 1:54 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8800007 | 6.70217E+12 | 0.0037273 | 0.1116202 | 2.8800007 |
| 439 | 5827.66 | 575090 | 0.0975181 | 5/8/19 1:59 | 0.0116366 | 0.3484774 | 4.91901E+13 | 2.8765356 | 6.70217E+12 | 0.0045235 | 0.1354637 | 2.8765356 |
| 440 | 5833.57 | 575090 | 0.097617 | 5/8/19 2:04 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8794528 | 6.70217E+12 | 0.005794 | 0.173511 | 2.8794528 |
| 441 | 5837.02 | 575090 | 0.0976747 | 5/8/19 2:09 | 0.0119665 | 0.3583568 | 4.91901E+13 | 2.8811557 | 6.70217E+12 | 0.0120927 | 0.3621361 | 2.8811557 |
| 442 | 5834.82 | 575091 | 0.1021121 | 5/8/19 2:14 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0120484 | 6.70217E+12 | 0.0138694 | 0.4153423 | 3.0120484 |
| 443 | 5832.01 | 575091 | 0.1020629 | 5/8/19 2:19 | 0.0119665 | 0.3583568 | 4.70347E+13 | 3.0105978 | 6.70217E+12 | 0.0243003 | 0.727713 | 3.0105978 |
| 444 | 5827.28 | 57509 | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|------------|-----------|
| 471 | 5815.31 | 575106 | 0.1054969 | 5/8/19 4:39 | 0.0137229 | 0.4109551 | 4.53734E+13 | 3.1118911 | 6.70217E+12 | 0.0184185 | 0.5515727 | 3.1118911 |
| 472 | 5818.61 | 575108 | 0.1056718 | 5/8/19 4:44 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1170516 | 6.70217E+12 | 0.0141625 | 0.4241197 | 3.1170516 |
| 473 | 5810.51 | 575108 | 0.1055247 | 5/8/19 4:49 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1171214 | 6.70217E+12 | 0.0159072 | 0.4763676 | 3.1171214 |
| 474 | 5815.11 | 575108 | 0.1056083 | 5/8/19 4:54 | 0.0137229 | 0.4109551 | 4.5324E+13 | 3.1151766 | 6.70217E+12 | 0.0160139 | 0.4795629 | 3.1151766 |
| 475 | 5808.22 | 575109 | 0.1054956 | 5/8/19 4:59 | 0.0137229 | 0.4109551 | 4.53187E+13 | 3.1118531 | 6.70217E+12 | 0.0129169 | 0.3868181 | 3.1118531 |
| 476 | 5821.06 | 575109 | 0.1057288 | 5/8/19 5:04 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1187323 | 6.70217E+12 | 0.0087613 | 0.2623717 | 3.1187323 |
| 477 | 5830.24 | 575109 | 0.1058956 | 5/8/19 5:09 | 0.0172785 | 0.5174335 | 4.53187E+13 | 3.1236507 | 6.70217E+12 | 0.0125147 | 0.3747735 | 3.1236507 |
| 478 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:14 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0158514 | 0.4746966 | 3.1375074 |
| 479 | 5816.12 | 575110 | 0.1063653 | 5/8/19 5:19 | 0.0172785 | 0.5174335 | 4.50092E+13 | 3.1375074 | 6.70217E+12 | 0.0145818 | 0.4366763 | 3.1375074 |
| 480 | 5811.28 | 575111 | 0.1058572 | 5/8/19 5:24 | 0.0172785 | 0.5174335 | 4.51877E+13 | 3.1225197 | 6.70217E+12 | 0.0159657 | 0.4781195 | 3.1225197 |
| 481 | 5814.19 | 575113 | 0.1054793 | 5/8/19 5:29 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1113735 | 6.70217E+12 | 0.0189354 | 0.5670521 | 3.1113735 |
| 482 | 5822.89 | 575113 | 0.1056372 | 5/8/19 5:34 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1160292 | 6.70217E+12 | 0.0168377 | 0.504233 | 3.1160292 |
| 483 | 5825.26 | 575113 | 0.1056863 | 5/8/19 5:39 | 0.0172785 | 0.5174335 | 4.53722E+13 | 3.1174794 | 6.70217E+12 | 0.0142709 | 0.4273659 | 3.1174794 |
| 484 | 5825.47 | 575114 | 0.1057728 | 5/8/19 5:44 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1200304 | 6.70217E+12 | 0.0162737 | 0.4873431 | 3.1200304 |
| 485 | 5830.59 | 575114 | 0.1058658 | 5/8/19 5:49 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.1227726 | 6.70217E+12 | 0.016296 | 0.4880109 | 3.1227726 |
| 486 | 5839.34 | 575114 | 0.1060247 | 5/8/19 5:54 | 0.0172785 | 0.5174335 | 4.53341E+13 | 3.127459 | 6.70217E+12 | 0.0078999 | 0.2365757 | 3.127459 |
| 487 | 5838.51 | 575115 | 0.1055129 | 5/8/19 5:59 | 0.0172785 | 0.5174335 | 4.55475E+13 | 3.1123637 | 6.70217E+12 | 0.0157437 | 0.4717413 | 3.1123637 |
| 488 | 5829.09 | 575117 | 0.1054774 | 5/8/19 6:04 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1113164 | 6.70217E+12 | 0.015334 | 0.4592022 | 3.1113164 |
| 489 | 5826.85 | 575117 | 0.1054369 | 5/8/19 6:09 | 0.0211899 | 0.6345669 | 4.54893E+13 | 3.1101208 | 6.70217E+12 | 0.0095667 | 0.2864908 | 3.1101208 |
| 490 | 5838.53 | 575118 | 0.105587 | 5/8/19 6:14 | 0.0211899 | 0.6345669 | 4.55157E+13 | 3.1145494 | 6.70217E+12 | 0.0126575 | 0.3790499 | 3.1145494 |
| 491 | 5843.74 | 575119 | 0.1054459 | 5/8/19 6:19 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1103869 | 6.70217E+12 | 0.0159603 | 0.4779578 | 3.1103869 |
| 492 | 5843.03 | 575119 | 0.1054331 | 5/8/19 6:24 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.110009 | 6.70217E+12 | 0.0169939 | 0.5089107 | 3.110009 |
| 493 | 5842.51 | 575119 | 0.1054237 | 5/8/19 6:29 | 0.0211899 | 0.6345669 | 4.56173E+13 | 3.1097323 | 6.70217E+12 | 0.0176305 | 0.5279747 | 3.1097323 |
| 494 | 5859.77 | 575120 | 0.1055662 | 5/8/19 6:34 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1139353 | 6.70217E+12 | 0.0182108 | 0.5453528 | 3.1139353 |
| 495 | 5849.16 | 575120 | 0.1053751 | 5/8/19 6:39 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1082971 | 6.70217E+12 | 0.0222873 | 0.6674303 | 3.1082971 |
| 496 | 5859.91 | 575120 | 0.1055687 | 5/8/19 6:44 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1140097 | 6.70217E+12 | 0.0240313 | 0.7196573 | 3.1140097 |
| 497 | 5874.94 | 575120 | 0.1058395 | 5/8/19 6:49 | 0.0211899 | 0.6345669 | 4.56903E+13 | 3.1219968 | 6.70217E+12 | 0.0247785 | 0.7420335 | 3.1219968 |
| 498 | 5849.77 | 575122 | 0.1058251 | 5/8/19 6:54 | 0.0211899 | 0.6345669 | 4.55007E+13 | 3.1215733 | 6.70217E+12 | 0.035146 | 1.0525055 | 3.1215733 |
| 499 | 5847.52 | 575123 | 0.1059851 | 5/8/19 6:59 | 0.0211899 | 0.6345669 | 4.54146E+13 | 3.1262913 | 6.70217E+12 | 0.0331317 | 0.992184 | 3.1262913 |
| 500 | 5858.74 | 575123 | 0.1061884 | 5/8/19 7:04 | 0.0245969 | 0.7365952 | 4.54146E+13 | 3.1225899 | 6.70217E+12 | 0.0225584 | 0.6755489 | 3.1225899 |
| 501 | 5868.24 | 575124 | 0.1046351 | 5/8/19 7:09 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0864695 | 6.70217E+12 | 0.0227738 | 0.6819994 | 3.0864695 |
| 502 | 5860.28 | 575124 | 0.1044931 | 5/8/19 7:14 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0822829 | 6.70217E+12 | 0.0189208 | 0.5666149 | 3.0822829 |
| 503 | 5864.03 | 575124 | 0.10456 | 5/8/19 7:19 | 0.0245969 | 0.7365952 | 4.61635E+13 | 3.0842552 | 6.70217E+12 | 0.0206953 | 0.6197553 | 3.0842552 |
| 504 | 5860.24 | 575125 | 0.1049602 | 5/8/19 7:24 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0960609 | 6.70217E+12 | 0.0230157 | 0.6892435 | 3.0960609 |
| 505 | 5855.35 | 575125 | 0.1048726 | 5/8/19 7:29 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0934774 | 6.70217E+12 | 0.0225888 | 0.6764593 | 3.0934774 |
| 506 | 5861.24 | 575125 | 0.1049781 | 5/8/19 7:34 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0965892 | 6.70217E+12 | 0.0205788 | 0.6162665 | 3.0965892 |
| 507 | 5864.22 | 575125 | 0.1050315 | 5/8/19 7:39 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0981636 | 6.70217E+12 | 0.0197214 | 0.5905902 | 3.0981636 |
| 508 | 5855.4 | 575125 | 0.1048735 | 5/8/19 7:44 | 0.0245969 | 0.7365952 | 4.59578E+13 | 3.0935039 | 6.70217E+12 | 0.0198359 | 0.5940191 | 3.0935039 |
| 509 | 5848.68 | 575126 | 0.102448 | 5/8/19 7:49 | 0.0245969 | 0.7365952 | 4.69919E+13 | 3.0219576 | 6.70217E+12 | 0.0296779 | 0.8887542 | 3.0219576 |
| 510 | 5843.55 | 575127 | 0.1024751 | 5/8/19 7:54 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0227572 | 6.70217E+12 | 0.0208223 | 0.6235585 | 3.0227572 |
| 511 | 5851.77 | 575127 | 0.1026193 | 5/8/19 7:59 | 0.0245969 | 0.7365952 | 4.69382E+13 | 3.0270092 | 6.70217E+12 | 0.0230156 | 0.6892405 | 3.0270092 |
| 512 | 5849.49 | 575127 | 0.1025793 | 5/8/19 8:04 | 0.0242095 | 0.7249938 | 4.69382E+13 | 3.0258298 | 6.70217E+12 | 0.0232039 | 0.6948795 | 3.0258298 |
| 513 | 5849.48 | 575129 | 0.1024537 | 5/8/19 8:09 | 0.0242095 | 0.7249938 | 4.69957E+13 | 3.0221242 | 6.70217E+12 | 0.0199092 | 0.5962142 | 3.0221242 |
| 514 | 5848.2 | 575130 | 0.1023337 | 5/8/19 8:14 | 0.0242095 | 0.7249938 | 4.70405E+13 | 3.0185855 | 6.70217E+12 | 0.0193885 | 0.5806209 | 3.0185855 |
| 515 | 5833.78 | 575131 | 0.1018159 | 5/8/19 8:19 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0033105 | 6.70217E+12 | 0.0228642 | 0.6847066 | 3.0033105 |
| 516 | 5845.68 | 575131 | 0.1020236 | 5/8/19 8:24 | 0.0242095 | 0.7249938 | 4.71632E+13 | 3.0094368 | 6.70217E+12 | 0.0197323 | 0.5909166 | 3.0094368 |
| 517 | 5850.11 | 575133 | 0.1010354 | 5/8/19 8:29 | 0.0242095 | 0.7249938 | 4.76518E+13 | 3.9808362 | 6.70217E+12 | 0.0210194 | 0.629461 | 2.9808362 |
| 518 | 5849.94 | 575134 | 0.101143 | 5/8/19 8:34 | 0.0242095 | 0.7249938 | 4.76084E+13 | 3.9834634 | 6.70217E+12 | 0.0253845 | 0.7601812 | 2.9834634 |
| 519 | 5844.18 | 575135 | 0.1003625 | 5/8/19 8:39 | 0.0242095 | 0.7249938 | 4.79315E+13 | 3.9604385 | 6.70217E+12 | 0.0187378 | 0.5611347 | 2.9604385 |
| 520 | 5844.99 | 575136 | 0.1007176 | 5/8/19 8:45 | 0.0242095 | 0.7249938 | 4.77691E+13 | 3.9709144 | 6.70217E+12 | 0.0201853 | 0.6044825 | 2.9709144 |
| 521 | 5856.45 | 575136 | 0.1009151 | 5/8/19 8:50 | 0.0242095 | 0.7249938 | 4.77691E+13 | 3.9767393 | 6.70217E+12 | 0.0212258 | 0.635642 | 2.9767393 |
| 522 | 5861.07 | 575136 | 0.1009947 | 5/8/19 8:55 | 0.0242095 | 0.7249938 | 4.77691E+13 | 3.9790876 | 6.70217E+12 | 0.0203371 | 0.6090284 | 2.9790876 |
| 523 | 5859.02 | 575136 | 0.1009594 | 5/8/19 9:00 | 0.0244939 | 0.7335107 | 4.77691E+13 | 3.9780456 | 6.70217E+12 | 0.0193291 | 0.5788421 | 2.9780456 |
| 524 | 5865.61 | 575136 | 0.1010729 | 5/8/19 9:05 | 0.0244939 | 0.7335107 | 4.77691E+13 | 3.9813952 | 6.70217E+12 | 0.0272511 | 0.8160796 | 2.9813952 |
| 525 | 5854.26 | 575136 | 0.1008773 | 5/8/19 9:10 | 0.0244939 | 0.7335107 | 4.77691E+13 | 3.9756262 | 6.70217E+12 | 0.0236817 | 0.709188 | 2.9756262 |
| 526 | 5831.3 | 575137 | 0.1018101 | 5/8/19 9:15 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0031404 | 6.70217E+12 | 0.0214969 | 0.64376289 | 3.0031404 |
| 527 | 5839.16 | 575137 | 0.1019473 | 5/8/19 9:20 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0071883 | 6.70217E+12 | 0.0214921 | 0.64364101 | 3.0071883 |
| 528 | 5843.2 | 575137 | 0.1020179 | 5/8/19 9:25 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0092689 | 6.70217E+12 | 0.0275293 | 0.8244108 | 3.0092689 |
| 529 | 5841.15 | 575137 | 0.1019821 | 5/8/19 9:30 | 0.0244939 | 0.7335107 | 4.71458E+13 | 3.0082132 | 6.70217E+12 | 0.0429576 | 1.2864369 | 3.0082132 |
| 530 | 5849.05 | 575139 | 0.1011946 | 5/8/19 9:35 | 0.0244939 | 0.7335107 | 4.7577E+13 | 3.9849829 | 6.70217E+12 | 0.0232529 | 0.6963468 | 2.9849829 |
| 531 | 5857.36 | 575140 | 0.0999202 | 5/8/19 9:40 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.947394 | 6.70217E+12 | 0.0229391 | 0.6869496 | 2.947394 |
| 532 | 5857.91 | 575140 | 0.0999296 | 5/8/19 9:45 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9476708 | 6.70217E+12 | 0.0235124 | 0.704118 | 2.9476708 |
| 533 | 5864.03 | 575140 | 0.100034 | 5/8/19 9:50 | 0.0244939 | 0.7335107 | 4.82522E+13 | 2.9507504 | 6.70217E+12 | 0.0259313 | 0.776556 | 2.9507504 |
| 534 | 5868.53 | 575142 | 0.0972217 | 5/8/19 9:55 | 0.0244939 | 0.7335107 | 4.96861E+13 | 2.8677931 | 6.70217E+12 | 0.0202099 | 0.6052191 | 2.8677931 |
| 535 | 5857.64 | 575143 | 0.0964425 | 5/8/19 10:00 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8448083 | 6.70217E+12 | 0.018816 | 0.5634765 | 2.8448083 |
| 536 | 5866.7 | 575143 | 0.0965916 | 5/8/19 10:05 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8492083 | 6.70217E+12 | 0.0166105 | 0.4974291 | 2.8492083 |
| 537 | 5863.82 | 575143 | 0.0965442 | 5/8/19 10:10 | 0.0273545 | 0.8191761 | 4.99946E+13 | 2.8478096 | 6.70217E+12 | 0.0189675 | 0.5680134 | 2.8478096 |
| 538 | 5866.01 | 575143 | 0.0 | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|-----------|-------------|-----------|-------------|-----------|-----------|-----------|
| 565 | 5886.52 | 575156 | 0.0934827 | 5/8/19 12:31 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7575042 | 6.70217E+12 | 0.0246938 | 0.739497 | 2.7575042 |
| 566 | 5883.25 | 575156 | 0.0934308 | 5/8/19 12:36 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7559724 | 6.70217E+12 | 0.0239477 | 0.7171538 | 2.7559724 |
| 567 | 5880.8 | 575156 | 0.0933919 | 5/8/19 12:41 | 0.026371 | 0.7897235 | 5.18317E+13 | 2.7548247 | 6.70217E+12 | 0.0215346 | 0.6448895 | 2.7548247 |
| 568 | 5886.84 | 575157 | 0.0931778 | 5/8/19 12:46 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7485095 | 6.70217E+12 | 0.0215175 | 0.6443774 | 2.7485095 |
| 569 | 5887.77 | 575157 | 0.0931925 | 5/8/19 12:51 | 0.026371 | 0.7897235 | 5.20042E+13 | 2.7489437 | 6.70217E+12 | 0.0210953 | 0.6317339 | 2.7489437 |
| 570 | 5886.14 | 575159 | 0.0936745 | 5/8/19 12:56 | 0.026371 | 0.7897235 | 5.17223E+13 | 2.7631598 | 6.70217E+12 | 0.0221968 | 0.6647202 | 2.7631598 |
| 571 | 5880.23 | 575159 | 0.0935804 | 5/8/19 13:01 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7603855 | 6.70217E+12 | 0.0220558 | 0.6604977 | 2.7603855 |
| 572 | 5884.79 | 575159 | 0.093635 | 5/8/19 13:06 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7625261 | 6.70217E+12 | 0.0232481 | 0.6962031 | 2.7625261 |
| 573 | 5887.12 | 575159 | 0.0936901 | 5/8/19 13:11 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.7636199 | 6.70217E+12 | 0.0228614 | 0.6846227 | 2.7636199 |
| 574 | 5882.83 | 575159 | 0.0936218 | 5/8/19 13:16 | 0.0224056 | 0.670973 | 5.17223E+13 | 2.761606 | 6.70217E+12 | 0.0286842 | 0.8589962 | 2.761606 |
| 575 | 5887.05 | 575160 | 0.095298 | 5/8/19 13:21 | 0.0224056 | 0.670973 | 5.0849E+13 | 2.8110496 | 6.70217E+12 | 0.0210217 | 0.6295298 | 2.8110496 |
| 576 | 5885.01 | 575161 | 0.0954767 | 5/8/19 13:26 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8163217 | 6.70217E+12 | 0.0209618 | 0.627736 | 2.8163217 |
| 577 | 5877.03 | 575161 | 0.0953473 | 5/8/19 13:31 | 0.0224056 | 0.670973 | 5.07362E+13 | 2.8125028 | 6.70217E+12 | 0.019652 | 0.5885119 | 2.8125028 |
| 578 | 5864.5 | 575163 | 0.0928787 | 5/8/19 13:36 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7396868 | 6.70217E+12 | 0.0197032 | 0.5900452 | 2.7396868 |
| 579 | 5878.37 | 575163 | 0.0930984 | 5/8/19 13:41 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7461664 | 6.70217E+12 | 0.0229336 | 0.6867849 | 2.7461664 |
| 580 | 5884.42 | 575163 | 0.0931942 | 5/8/19 13:46 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7489927 | 6.70217E+12 | 0.027902 | 0.8355719 | 2.7489927 |
| 581 | 5882.28 | 575163 | 0.0931603 | 5/8/19 13:51 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.747993 | 6.70217E+12 | 0.0286405 | 0.8576875 | 2.747993 |
| 582 | 5884.83 | 575163 | 0.0932007 | 5/8/19 13:56 | 0.0224056 | 0.670973 | 5.19737E+13 | 2.7491843 | 6.70217E+12 | 0.0262751 | 0.7868517 | 2.7491843 |
| 583 | 5884.52 | 575164 | 0.0946934 | 5/8/19 14:01 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.793214 | 6.70217E+12 | 0.027166 | 0.8135311 | 2.793214 |
| 584 | 5879.67 | 575164 | 0.0946153 | 5/8/19 14:06 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7909119 | 6.70217E+12 | 0.0243166 | 0.7282011 | 2.7909119 |
| 585 | 5877.49 | 575164 | 0.0945802 | 5/8/19 14:11 | 0.0200678 | 0.6009637 | 5.11517E+13 | 2.7898771 | 6.70217E+12 | 0.0208701 | 0.6249899 | 2.7898771 |
| 586 | 5887.28 | 575166 | 0.0950829 | 5/8/19 14:16 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8047039 | 6.70217E+12 | 0.0218292 | 0.6537118 | 2.8047039 |
| 587 | 5884.05 | 575166 | 0.0950307 | 5/8/19 14:21 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8031651 | 6.70217E+12 | 0.0217633 | 0.6517383 | 2.8031651 |
| 588 | 5885.12 | 575166 | 0.0950408 | 5/8/19 14:26 | 0.0200678 | 0.6009637 | 5.0966E+13 | 2.8036749 | 6.70217E+12 | 0.0217781 | 0.6521815 | 2.8036749 |
| 589 | 5902.91 | 575167 | 0.0961455 | 5/8/19 14:31 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.836049 | 6.70217E+12 | 0.021451 | 0.6423859 | 2.836049 |
| 590 | 5902.72 | 575167 | 0.0961424 | 5/8/19 14:36 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8359577 | 6.70217E+12 | 0.1801174 | 5.3939157 | 5.3939157 |
| 591 | 5906.61 | 575167 | 0.0962058 | 5/8/19 14:41 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8378267 | 6.70217E+12 | 0.0426523 | 1.2772942 | 2.8378267 |
| 592 | 5912.28 | 575167 | 0.0962981 | 5/8/19 14:46 | 0.0200678 | 0.6009637 | 5.05365E+13 | 2.8405508 | 6.70217E+12 | 0.1999116 | 5.986686 | 5.986686 |
| 593 | 5908.65 | 575170 | 0.095031 | 5/8/19 14:51 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.8031727 | 6.70217E+12 | 0.2670565 | 7.997452 | 7.997452 |
| 594 | 5900.02 | 575170 | 0.0948922 | 5/8/19 14:56 | 0.0200678 | 0.6009637 | 5.1179E+13 | 2.7990785 | 6.70217E+12 | 0.0299601 | 0.8972051 | 2.7990785 |
| 595 | 5884.23 | 575171 | 0.0950701 | 5/8/19 15:01 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8043263 | 6.70217E+12 | 0.0297971 | 0.8923238 | 2.8043263 |
| 596 | 5890.02 | 575171 | 0.0951636 | 5/8/19 15:06 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8070857 | 6.70217E+12 | 0.0254303 | 0.7615527 | 2.8070857 |
| 597 | 5890.65 | 575171 | 0.0951738 | 5/8/19 15:11 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.8073859 | 6.70217E+12 | 0.0264722 | 0.7927541 | 2.8073859 |
| 598 | 5868.34 | 575171 | 0.0948133 | 5/8/19 15:16 | 0.0170556 | 0.5107584 | 5.09465E+13 | 2.7967533 | 6.70217E+12 | 0.0232906 | 0.6974758 | 2.7967533 |
| 599 | 5883.01 | 575172 | 0.0962041 | 5/8/19 15:21 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.837777 | 6.70217E+12 | 0.0222239 | 0.6655317 | 2.837777 |
| 600 | 5877.22 | 575172 | 0.0961094 | 5/8/19 15:26 | 0.0170556 | 0.5107584 | 5.03355E+13 | 2.8349841 | 6.70217E+12 | 0.021497 | 0.6437635 | 2.8349841 |
| 601 | 5882.35 | 575173 | 0.0955836 | 5/8/19 15:31 | 0.0170556 | 0.5107584 | 5.06566E+13 | 2.8194728 | 6.70217E+12 | 0.0233908 | 0.7004765 | 2.8194728 |
| 602 | 5895.23 | 575174 | 0.0960485 | 5/8/19 15:36 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8331879 | 6.70217E+12 | 0.0260191 | 0.7791853 | 2.8331879 |
| 603 | 5891.02 | 575174 | 0.0959799 | 5/8/19 15:41 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8311646 | 6.70217E+12 | 0.0204508 | 0.6124333 | 2.8311646 |
| 604 | 5895.3 | 575174 | 0.0960497 | 5/8/19 15:46 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8332215 | 6.70217E+12 | 0.0203869 | 0.6105197 | 2.8332215 |
| 605 | 5898.69 | 575174 | 0.0961049 | 5/8/19 15:51 | 0.0170556 | 0.5107584 | 5.05218E+13 | 2.8348507 | 6.70217E+12 | 0.0210614 | 0.6307187 | 2.8348507 |
| 606 | 5898.34 | 575175 | 0.0970802 | 5/8/19 15:56 | 0.0170556 | 0.5107584 | 5.00112E+13 | 2.863621 | 6.70217E+12 | 0.0209194 | 0.6264663 | 2.863621 |
| 607 | 5900.14 | 575176 | 0.0971661 | 5/8/19 16:01 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8661537 | 6.70217E+12 | 0.0209977 | 0.6288111 | 2.8661537 |
| 608 | 5891.31 | 575176 | 0.0970207 | 5/8/19 16:06 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.8618643 | 6.70217E+12 | 0.0203367 | 0.6090164 | 2.8618643 |
| 609 | 5893.65 | 575176 | 0.0970592 | 5/8/19 16:11 | 0.0174326 | 0.5220483 | 4.99823E+13 | 2.863001 | 6.70217E+12 | 0.0213506 | 0.6393793 | 2.863001 |
| 610 | 5892.53 | 575177 | 0.0969298 | 5/8/19 16:16 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8591849 | 6.70217E+12 | 0.0261533 | 0.7832042 | 2.8591849 |
| 611 | 5894.16 | 575177 | 0.0969567 | 5/8/19 16:21 | 0.0174326 | 0.5220483 | 5.00395E+13 | 2.8599758 | 6.70217E+12 | 0.0258626 | 0.7744987 | 2.8599758 |
| 612 | 5895.84 | 575178 | 0.097466 | 5/8/19 16:26 | 0.0174326 | 0.5220483 | 4.97004E+13 | 2.88031 | 6.70217E+12 | 0.0215949 | 0.6466953 | 2.88031 |
| 613 | 5896.89 | 575179 | 0.0980892 | 5/8/19 16:31 | 0.0174326 | 0.5220483 | 4.94846E+13 | 2.8933819 | 6.70217E+12 | 0.0198411 | 0.5941748 | 2.8933819 |
| 614 | 5902.19 | 575180 | 0.0983841 | 5/8/19 16:36 | 0.0174326 | 0.5220483 | 4.93807E+13 | 2.9020809 | 6.70217E+12 | 0.0207134 | 0.6202973 | 2.9020809 |
| 615 | 5905.9 | 575181 | 0.097534 | 5/8/19 16:41 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8770052 | 6.70217E+12 | 0.0223016 | 0.6678586 | 2.8770052 |
| 616 | 5906.84 | 575181 | 0.0975495 | 5/8/19 16:46 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8774631 | 6.70217E+12 | 0.0254538 | 0.7622565 | 2.8774631 |
| 617 | 5904.42 | 575181 | 0.0975095 | 5/8/19 16:51 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8762842 | 6.70217E+12 | 0.025079 | 0.7510325 | 2.8762842 |
| 618 | 5903.02 | 575181 | 0.0974864 | 5/8/19 16:56 | 0.0174326 | 0.5220483 | 4.98424E+13 | 2.8756022 | 6.70217E+12 | 0.0246071 | 0.7369006 | 2.8756022 |
| 619 | 5894.63 | 575182 | 0.0989154 | 5/8/19 17:01 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9177544 | 6.70217E+12 | 0.0226389 | 0.6779596 | 2.9177544 |
| 620 | 5898.06 | 575182 | 0.098973 | 5/8/19 17:06 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9194522 | 6.70217E+12 | 0.0256642 | 0.7685572 | 2.9194522 |
| 621 | 5891.22 | 575182 | 0.0988582 | 5/8/19 17:11 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9160665 | 6.70217E+12 | 0.0384273 | 1.1507695 | 2.9160665 |
| 622 | 5888.49 | 575182 | 0.0988124 | 5/8/19 17:16 | 0.0174032 | 0.5211678 | 4.90525E+13 | 2.9147151 | 6.70217E+12 | 0.0364449 | 1.0914033 | 2.9147151 |
| 623 | 5895.57 | 575183 | 0.0996828 | 5/8/19 17:21 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9403898 | 6.70217E+12 | 0.0191003 | 0.5719903 | 2.9403898 |
| 624 | 5896.91 | 575183 | 0.0997054 | 5/8/19 17:26 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9410582 | 6.70217E+12 | 0.0230176 | 0.6893004 | 2.9410582 |
| 625 | 5918.72 | 575183 | 0.1000742 | 5/8/19 17:31 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9519358 | 6.70217E+12 | 0.0030289 | 0.0907055 | 2.9519358 |
| 626 | 5926.18 | 575183 | 0.1002003 | 5/8/19 17:36 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9556564 | 6.70217E+12 | 0.0439309 | 1.315584 | 2.9556564 |
| 627 | 5934.97 | 575183 | 0.100349 | 5/8/19 17:41 | 0.0174032 | 0.5211678 | 4.86826E+13 | 2.9600404 | 6.70217E+12 | 0.0408583 | 1.2235699 | 2.9600404 |
| 628 | 5944.99 | 575185 | 0.100551 | 5/8/19 17:46 | 0.0174032 | 0.5211678 | 4.8669E+13 | 2.9659989 | 6.70217E+12 | 0.0170991 | 0.512061 | 2.9659989 |
| 629 | 5940.01 | 575185 | 0.1004667 | 5/8/19 17:51 | 0.0174032 | 0.5211678 | 4.8669E+13 | 2.9635144 | 6.70217E+12 | 0.0183967 | 0.5509198 | 2.9635144 |
| 630 | 5931.52 | 575186 | 0.1008871 | 5/8/19 17:56 | 0.0174032 | 0.5211678 | 4.83948E+13 | 2.9759139 | 6.70217E+12 | 0.0163528 | 0.4897119 | 2.9759139 |
| 631 | 5938.6 | 575188 | 0.0986457 | 5/8/19 18:01 | 0.0165475 | 0.4955425 | 4.95535E+13 | 2.9097985 | 6.70217E+12 | 0.0185884 | 0.5566606 | 2.9097985 |
| 632 | 593 | | | | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|------------|------------|-------------|-----------|-------------|------------|------------|-----------|
| 659 | 6053.32 | 575199 | 0.1035905 | 5/8/19 20:22 | 0.013261 | 0.3971227 | 4.80997E+13 | 3.0556586 | 6.70217E+12 | 0.0163585 | 0.4898825 | 3.0556586 |
| 660 | 6041.03 | 575200 | 0.1032464 | 5/8/19 20:27 | 0.013261 | 0.3971227 | 4.8162E+13 | 3.0455058 | 6.70217E+12 | 0.0188459 | 0.5643719 | 3.0455058 |
| 661 | 6030.66 | 575202 | 0.1032473 | 5/8/19 20:32 | 0.013261 | 0.3971227 | 4.80789E+13 | 3.0455341 | 6.70217E+12 | 0.0134602 | 0.4030881 | 3.0455341 |
| 662 | 6043.34 | 575204 | 0.1032455 | 5/8/19 20:37 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.0454809 | 6.70217E+12 | 0.0164743 | 0.4933504 | 3.0454809 |
| 663 | 6042.19 | 575204 | 0.1032259 | 5/8/19 20:42 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.0449014 | 6.70217E+12 | 0.0147002 | 0.4402222 | 3.0449014 |
| 664 | 6049.96 | 575204 | 0.1033586 | 5/8/19 20:47 | 0.013261 | 0.3971227 | 4.81808E+13 | 3.048817 | 6.70217E+12 | 0.0148678 | 0.4452411 | 3.048817 |
| 665 | 6051.76 | 575205 | 0.1040715 | 5/8/19 20:52 | 0.013261 | 0.3971227 | 4.7865E+13 | 3.0698443 | 6.70217E+12 | 0.0130545 | 0.3909388 | 3.0698443 |
| 666 | 6054.77 | 575206 | 0.1045618 | 5/8/19 20:57 | 0.013261 | 0.3971227 | 4.76643E+13 | 3.084309 | 6.70217E+12 | 0.0122348 | 0.3663915 | 3.084309 |
| 667 | 6045.31 | 575206 | 0.1043985 | 5/8/19 21:02 | 0.0057558 | 0.172367 | 4.76643E+13 | 3.0794901 | 6.70217E+12 | 0.0113115 | 0.3387417 | 3.0794901 |
| 668 | 6042.99 | 575207 | 0.1043195 | 5/8/19 21:07 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0771614 | 6.70217E+12 | 0.0064092 | 0.1919342 | 3.0771614 |
| 669 | 6038.47 | 575207 | 0.1042415 | 5/8/19 21:12 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0748598 | 6.70217E+12 | 0.0050076 | 0.1499609 | 3.0748598 |
| 670 | 6046.62 | 575207 | 0.1043822 | 5/8/19 21:17 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0790099 | 6.70217E+12 | -0.0026668 | -0.0798618 | 3.0790099 |
| 671 | 6044.8 | 575207 | 0.1043508 | 5/8/19 21:22 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0780831 | 6.70217E+12 | 0.0105849 | 0.3169825 | 3.0780831 |
| 672 | 6048.33 | 575207 | 0.1044117 | 5/8/19 21:27 | 0.0057558 | 0.172367 | 4.7682E+13 | 3.0788806 | 6.70217E+12 | 0.0086089 | 0.2578079 | 3.0788806 |
| 673 | 6052.87 | 575208 | 0.1057954 | 5/8/19 21:32 | 0.0057558 | 0.172367 | 4.70937E+13 | 3.1206959 | 6.70217E+12 | 0.0018 | 0.053904 | 3.1206959 |
| 674 | 6056.61 | 575210 | 0.1055202 | 5/8/19 21:37 | 0.0057558 | 0.172367 | 4.72457E+13 | 3.1125773 | 6.70217E+12 | -0.0021614 | -0.0647267 | 3.1125773 |
| 675 | 6059.99 | 575212 | 0.0995054 | 5/8/19 21:42 | 0.0057558 | 0.172367 | 5.01295E+13 | 2.9351584 | 6.70217E+12 | -0.0034416 | -0.1030644 | 2.9351584 |
| 676 | 6049.69 | 575213 | 0.0988159 | 5/8/19 21:47 | 0.0057558 | 0.172367 | 5.03935E+13 | 2.9148188 | 6.70217E+12 | -0.0015146 | -0.0453572 | 2.9148188 |
| 677 | 6056.42 | 575214 | 0.0996142 | 5/8/19 21:52 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9383674 | 6.70217E+12 | -0.0023178 | -0.0694104 | 2.9383674 |
| 678 | 6045.27 | 575214 | 0.0994308 | 5/8/19 21:57 | 0.0057558 | 0.172367 | 5.00453E+13 | 2.9329578 | 6.70217E+12 | 0.0029429 | 0.08813 | 2.9329578 |
| 679 | 6041.19 | 575214 | 0.0993637 | 5/8/19 22:02 | -0.0039885 | -0.1194423 | 5.00453E+13 | 2.9309783 | 6.70217E+12 | 0.0028846 | 0.0863842 | 2.9309783 |
| 680 | 6033.23 | 575215 | 0.0986577 | 5/8/19 22:07 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9101535 | 6.70217E+12 | -0.0021717 | -0.0650352 | 2.9101535 |
| 681 | 6034.99 | 575215 | 0.0986865 | 5/8/19 22:12 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9110025 | 6.70217E+12 | 0.0094236 | 0.2822054 | 2.9110025 |
| 682 | 6042.83 | 575215 | 0.0988147 | 5/8/19 22:17 | -0.0039885 | -0.1194423 | 5.0337E+13 | 2.9147841 | 6.70217E+12 | -0.0117128 | -0.3507593 | 2.9147841 |
| 683 | 6033.48 | 575216 | 0.0981874 | 5/8/19 22:22 | -0.0039885 | -0.1194423 | 5.05802E+13 | 2.8962791 | 6.70217E+12 | -0.0071632 | -0.214514 | 2.8962791 |
| 684 | 6028.01 | 575217 | 0.0985494 | 5/8/19 22:27 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9069577 | 6.70217E+12 | -0.0043047 | -0.1289114 | 2.9069577 |
| 685 | 6027.43 | 575217 | 0.0985399 | 5/8/19 22:32 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.906678 | 6.70217E+12 | -0.0026014 | -0.0779033 | 2.906678 |
| 686 | 6029.94 | 575217 | 0.098581 | 5/8/19 22:37 | -0.0039885 | -0.1194423 | 5.03487E+13 | 2.9078884 | 6.70217E+12 | -0.0017683 | -0.0529547 | 2.9078884 |
| 687 | 6039.16 | 575219 | 0.0983331 | 5/8/19 22:42 | -0.0039885 | -0.1194423 | 5.05528E+13 | 2.9005763 | 6.70217E+12 | -0.0018002 | -0.05391 | 2.9005763 |
| 688 | 6039.06 | 575221 | 0.0975716 | 5/8/19 22:47 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.8781157 | 6.70217E+12 | 0.0035525 | 0.1063855 | 2.8781157 |
| 689 | 6035.97 | 575221 | 0.0975217 | 5/8/19 22:52 | -0.0039885 | -0.1194423 | 5.09465E+13 | 2.876643 | 6.70217E+12 | -0.0028608 | -0.0856714 | 2.876643 |
| 690 | 6041.91 | 575222 | 0.0971742 | 5/8/19 22:57 | -0.0039885 | -0.1194423 | 5.1179E+13 | 2.8663937 | 6.70217E+12 | -0.0044334 | -0.1327656 | 2.8663937 |
| 691 | 6066.64 | 575224 | 0.1014592 | 5/9/19 0:02 | -0.0060127 | -0.1800603 | 4.92181E+13 | 2.9927906 | 6.70217E+12 | -0.0145142 | -0.4346519 | 2.9927906 |
| 692 | 6072.36 | 575225 | 0.1021048 | 5/9/19 0:07 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0118316 | 6.70217E+12 | -0.0130235 | -0.3900104 | 3.0118316 |
| 693 | 6068.07 | 575225 | 0.1020326 | 5/9/19 0:12 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0097038 | 6.70217E+12 | -0.0286662 | -0.858517 | 3.0097038 |
| 694 | 6076.08 | 575225 | 0.1021673 | 5/9/19 0:17 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0136767 | 6.70217E+12 | -0.0231556 | -0.693433 | 3.0136767 |
| 695 | 6077.05 | 575225 | 0.1021836 | 5/9/19 0:22 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0141578 | 6.70217E+12 | -0.0015472 | -0.0463335 | 3.0141578 |
| 696 | 6056.56 | 575225 | 0.1018391 | 5/9/19 0:27 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.003995 | 6.70217E+12 | -0.0012057 | -0.0361067 | 3.003995 |
| 697 | 6053.34 | 575225 | 0.1017849 | 5/9/19 0:37 | -0.0060127 | -0.1800603 | 4.89531E+13 | 3.0023979 | 6.70217E+12 | -0.0181456 | -0.5434002 | 3.0023979 |
| 698 | 6047.02 | 575227 | 0.1035951 | 5/9/19 0:42 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0557938 | 6.70217E+12 | -0.0191353 | -0.5730385 | 3.0557938 |
| 699 | 6061.52 | 575227 | 0.1038435 | 5/9/19 0:47 | -0.0060127 | -0.1800603 | 4.80475E+13 | 3.0631212 | 6.70217E+12 | -0.0107209 | -0.3210552 | 3.0631212 |
| 700 | 6050.01 | 575229 | 0.103384 | 5/9/19 0:52 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0495651 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0495651 |
| 701 | 6044.15 | 575229 | 0.1032838 | 5/9/19 0:57 | -0.0060127 | -0.1800603 | 4.81694E+13 | 3.0466114 | 6.70217E+12 | -0.0040798 | -0.1221764 | 3.0466114 |
| 702 | 6044.76 | 575229 | 0.1032943 | 5/9/19 1:02 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0469188 | 6.70217E+12 | -0.0033111 | -0.0991564 | 3.0469188 |
| 703 | 6039.56 | 575229 | 0.1032054 | 5/9/19 1:07 | -0.0084514 | -0.2530913 | 4.81694E+13 | 3.0442977 | 6.70217E+12 | -0.0031204 | -0.0934456 | 3.0442977 |
| 704 | 6042.9 | 575231 | 0.1030119 | 5/9/19 1:12 | -0.0084514 | -0.2530913 | 4.82866E+13 | 3.0385906 | 6.70217E+12 | -0.0012951 | -0.0387839 | 3.0385906 |
| 705 | 6042.77 | 575232 | 0.1030817 | 5/9/19 1:17 | -0.0084514 | -0.2530913 | 4.82528E+13 | 3.0406489 | 6.70217E+12 | -0.0005672 | -0.0169857 | 3.0406489 |
| 706 | 6053.94 | 575233 | 0.1033545 | 5/9/19 1:22 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0486951 | 6.70217E+12 | -0.0121807 | -0.3647714 | 3.0486951 |
| 707 | 6056.93 | 575233 | 0.1034055 | 5/9/19 1:27 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0502008 | 6.70217E+12 | -0.0149888 | -0.4488646 | 3.0502008 |
| 708 | 6055.69 | 575233 | 0.1033843 | 5/9/19 1:32 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0495763 | 6.70217E+12 | -0.0147726 | -0.4423901 | 3.0495763 |
| 709 | 6058.16 | 575233 | 0.1034265 | 5/9/19 1:37 | -0.0084514 | -0.2530913 | 4.82145E+13 | 3.0508022 | 6.70217E+12 | -0.0157309 | -0.471088 | 3.0508022 |
| 710 | 6059.3 | 575234 | 0.1038084 | 5/9/19 1:42 | -0.0084514 | -0.2530913 | 4.80461E+13 | 3.0620845 | 6.70217E+12 | -0.0227758 | -0.6820593 | 3.0620845 |
| 711 | 6061.34 | 575235 | 0.1031342 | 5/9/19 1:47 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0421965 | 6.70217E+12 | -0.0265233 | -0.7942844 | 3.0421965 |
| 712 | 6073.89 | 575235 | 0.1033477 | 5/9/19 1:52 | -0.0084514 | -0.2530913 | 4.83765E+13 | 3.0484953 | 6.70217E+12 | -0.0258125 | -0.7729983 | 3.0484953 |
| 713 | 6070.6 | 575236 | 0.1036534 | 5/9/19 1:57 | -0.0084514 | -0.2530913 | 4.82077E+13 | 3.0575115 | 6.70217E+12 | -0.0270166 | -0.8090571 | 3.0575115 |
| 714 | 6070.34 | 575237 | 0.1039744 | 5/9/19 2:02 | -0.009959 | -0.2982389 | 4.80568E+13 | 3.0669809 | 6.70217E+12 | -0.0241909 | -0.7244368 | 3.0669809 |
| 715 | 6070.64 | 575238 | 0.1033994 | 5/9/19 2:07 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0500217 | 6.70217E+12 | -0.0192845 | -0.5775065 | 3.0500217 |
| 716 | 6066.1 | 575238 | 0.1033221 | 5/9/19 2:12 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.0477407 | 6.70217E+12 | -0.0253576 | -0.7593756 | 3.0477407 |
| 717 | 6051.34 | 575238 | 0.1030707 | 5/9/19 2:17 | -0.009959 | -0.2982389 | 4.83264E+13 | 3.040325 | 6.70217E+12 | -0.0277084 | -0.8297742 | 3.040325 |
| 718 | 6061.78 | 575239 | 0.1040791 | 5/9/19 2:22 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.0700698 | 6.70217E+12 | -0.0259793 | -0.7779934 | 3.0700698 |
| 719 | 6063.51 | 575239 | 0.1041088 | 5/9/19 2:27 | -0.009959 | -0.2982389 | 4.79408E+13 | 3.070946 | 6.70217E+12 | -0.0268247 | -0.8033103 | 3.070946 |
| 720 | 6069.07 | 575240 | 0.1042653 | 5/9/19 2:32 | -0.009959 | -0.2982389 | 4.79168E+13 | 3.0752977 | 6.70217E+12 | -0.0240329 | -0.7197052 | 3.0752977 |
| 721 | 6065.45 | 575242 | 0.1026794 | 5/9/19 2:37 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0278732 | 6.70217E+12 | -0.0250565 | -0.7503587 | 3.0278732 |
| 722 | 6056.78 | 575242 | 0.1025327 | 5/9/19 2:43 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0244539 | 6.70217E+12 | -0.0183811 | -0.5504527 | 3.0244539 |
| 723 | 6054.89 | 575242 | 0.1025007 | 5/9/19 2:48 | -0.009959 | -0.2982389 | 4.86237E+13 | 3.0235101 | 6.70217E+12 | -0.0211004 | -0.6318866 | 3.0235101 |
| 724 | 6052.82 | 575243 | 0.1032503 | 5/9/19 2:53 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.0456209 | 6.70217E+12 | -0.0280966 | -0.8413995 | 3.0456209 |
| 725 | 6054.43 | 575243 | 0.1032777 | 5/9/19 2:58 | -0.009959 | -0.2982389 | 4.82542E+13 | 3.046341 | 6.70217E+12 | -0.0255341 | -0.7646612 | 3.046341 |
| 726 | 6054.32 | 575244 | 0.1033884 | 5/9/19 3 | | | | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|-----|---------|--------|-----------|--------------|-----------|------------|-------------|-----------|---------------|------------|------------|-----------|
| 753 | 6048.3 | 575258 | 0.1017896 | 5/9/19 5:18 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0025339 | 6.70217E+12 | -0.0245437 | -0.735002 | 3.0025339 |
| 754 | 6051.14 | 575258 | 0.1018373 | 5/9/19 5:23 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0039438 | 6.70217E+12 | -0.0272051 | -0.8147021 | 3.0039438 |
| 755 | 6057.19 | 575258 | 0.1019392 | 5/9/19 5:28 | -0.001004 | -0.0300665 | 4.89101E+13 | 3.0069471 | 6.70217E+12 | -0.026005 | -0.7787631 | 3.0069471 |
| 756 | 6059.15 | 575259 | 0.1040181 | 5/9/19 5:33 | -0.001004 | -0.0300665 | 4.79481E+13 | 3.0682693 | 6.70217E+12 | -0.0148258 | -0.4439833 | 3.0682693 |
| 757 | 6061.72 | 575260 | 0.1037848 | 5/9/19 5:38 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0613901 | 6.70217E+12 | -0.0244808 | -0.7331184 | 3.0613901 |
| 758 | 6057.72 | 575260 | 0.1037164 | 5/9/19 5:43 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.05937 | 6.70217E+12 | -0.0243887 | -0.7303603 | 3.05937 |
| 759 | 6057.7 | 575260 | 0.103716 | 5/9/19 5:48 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0593599 | 6.70217E+12 | -0.0198852 | -0.5954955 | 3.0593599 |
| 760 | 6047.35 | 575260 | 0.1035388 | 5/9/19 5:53 | -0.001004 | -0.0300665 | 4.80762E+13 | 3.0541327 | 6.70217E+12 | -0.0198875 | -0.5955643 | 3.0541327 |
| 761 | 6044.98 | 575261 | 0.1039808 | 5/9/19 5:58 | -0.001004 | -0.0300665 | 4.78531E+13 | 3.0671699 | 6.70217E+12 | -0.0198792 | -0.5953158 | 3.0671699 |
| 762 | 6040.28 | 575262 | 0.1043375 | 5/9/19 6:03 | 0.0099891 | 0.2991402 | 4.76524E+13 | 3.077692 | 6.70217E+12 | -0.0173633 | -0.519973 | 3.077692 |
| 763 | 6034.01 | 575263 | 0.1041918 | 5/9/19 6:08 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0733946 | 6.70217E+12 | -0.018275 | -0.5472753 | 3.0733946 |
| 764 | 6034.26 | 575263 | 0.1041961 | 5/9/19 6:13 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0735219 | 6.70217E+12 | -0.0079803 | -0.2389834 | 3.0735219 |
| 765 | 6037.47 | 575263 | 0.1042516 | 5/9/19 6:18 | 0.0099891 | 0.2991402 | 4.76695E+13 | 3.0751569 | 6.70217E+12 | -0.0028126 | -0.084228 | 3.0751569 |
| 766 | 6035.61 | 575264 | 0.1036859 | 5/9/19 6:23 | 0.0099891 | 0.2991402 | 4.79148E+13 | 3.0584702 | 6.70217E+12 | -0.0009188 | -0.027515 | 3.0584702 |
| 767 | 6032.26 | 575264 | 0.1036283 | 5/9/19 6:28 | 0.0099891 | 0.2991402 | 4.79148E+13 | 3.0567726 | 6.70217E+12 | -0.0017763 | -0.0531943 | 3.0567726 |
| 768 | 6035.08 | 575266 | 0.1012996 | 5/9/19 6:33 | 0.0099891 | 0.2991402 | 4.90392E+13 | 2.988081 | 6.70217E+12 | -0.0029613 | -0.0886811 | 2.988081 |
| 769 | 6038.27 | 575266 | 0.1013531 | 5/9/19 6:38 | 0.0099891 | 0.2991402 | 4.90392E+13 | 2.9896604 | 6.70217E+12 | -0.0017698 | -0.0529996 | 2.9896604 |
| 770 | 6038.35 | 575267 | 0.1004336 | 5/9/19 6:43 | 0.0099891 | 0.2991402 | 4.94889E+13 | 2.9625364 | 6.70217E+12 | -0.0040978 | -0.1227155 | 2.9625364 |
| 771 | 6041.06 | 575267 | 0.1004787 | 5/9/19 6:48 | 0.0099891 | 0.2991402 | 4.94889E+13 | 2.963866 | 6.70217E+12 | -0.0041121 | -0.1231437 | 2.963866 |
| 772 | 6032.6 | 575269 | 0.1003466 | 5/9/19 6:53 | 0.0099891 | 0.2991402 | 4.94846E+13 | 2.9599697 | 6.70217E+12 | -0.0017941 | -0.0537273 | 2.9599697 |
| 773 | 6038.62 | 575269 | 0.1004467 | 5/9/19 6:58 | 0.0099891 | 0.2991402 | 4.94846E+13 | 2.9629235 | 6.70217E+12 | -0.0169009 | -0.5061256 | 2.9629235 |
| 774 | 6023.18 | 575269 | 0.1001899 | 5/9/19 7:03 | 0.015734 | 0.4711809 | 4.94846E+13 | 2.9553477 | 6.70217E+12 | -0.0127165 | -0.3808168 | 2.9553477 |
| 775 | 6018.06 | 575270 | 0.100393 | 5/9/19 7:08 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9613379 | 6.70217E+12 | -0.0057831 | -0.1731846 | 2.9613379 |
| 776 | 6028.56 | 575270 | 0.1005681 | 5/9/19 7:13 | 0.015734 | 0.4711809 | 4.93426E+13 | 2.9665047 | 6.70217E+12 | -0.0011814 | -0.035379 | 2.9665047 |
| 777 | 6023.05 | 575271 | 0.1000255 | 5/9/19 7:18 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9505 | 6.70217E+12 | -0.0018878 | -0.0565333 | 2.9505 |
| 778 | 6002.6 | 575271 | 0.0996859 | 5/9/19 7:23 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9404822 | 6.70217E+12 | -0.0019315 | -0.057842 | 2.9404822 |
| 779 | 6004.55 | 575271 | 0.0997183 | 5/9/19 7:28 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9414374 | 6.70217E+12 | -0.0032781 | -0.0981682 | 2.9414374 |
| 780 | 6023.65 | 575271 | 0.1000355 | 5/9/19 7:33 | 0.015734 | 0.4711809 | 4.95649E+13 | 2.9507939 | 6.70217E+12 | -0.0044118 | -0.1321187 | 2.9507939 |
| 781 | 6022.52 | 575272 | 0.1006869 | 5/9/19 7:38 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9700094 | 6.70217E+12 | -0.0183056 | -0.5481917 | 2.9700094 |
| 782 | 6016.76 | 575272 | 0.1005906 | 5/9/19 7:43 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9671688 | 6.70217E+12 | -0.004465 | -0.1337119 | 2.9671688 |
| 783 | 6007.87 | 575272 | 0.100442 | 5/9/19 7:48 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9627847 | 6.70217E+12 | -0.0011594 | -0.0347202 | 2.9627847 |
| 784 | 5998.51 | 575272 | 0.1002855 | 5/9/19 7:53 | 0.015734 | 0.4711809 | 4.9235E+13 | 2.9581688 | 6.70217E+12 | -0.0019525 | -0.0584709 | 2.9581688 |
| 785 | 6004.67 | 575273 | 0.101848 | 5/9/19 7:58 | 0.015734 | 0.4711809 | 4.85294E+13 | 3.0042572 | 6.70217E+12 | -0.016446 | -0.4925029 | 3.0042572 |
| 786 | 5986.82 | 575273 | 0.1015452 | 5/9/19 8:03 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9953265 | 6.70217E+12 | -0.0226577 | -0.6785226 | 2.9953265 |
| 787 | 5966.01 | 575273 | 0.1011922 | 5/9/19 8:08 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9849149 | 6.70217E+12 | -0.0040549 | -0.1214307 | 2.9849149 |
| 788 | 5975.72 | 575273 | 0.1013569 | 5/9/19 8:13 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.989773 | 6.70217E+12 | 0.0088876 | 0.266154 | 2.989773 |
| 789 | 5974.19 | 575273 | 0.1013331 | 5/9/19 8:18 | 0.0212738 | 0.6370794 | 4.85294E+13 | 2.9890075 | 6.70217E+12 | 0.0059397 | 0.1778742 | 2.9890075 |
| 790 | 5989.16 | 575275 | 0.1021458 | 5/9/19 8:23 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130416 | 6.70217E+12 | 0.005809 | 0.1739602 | 3.0130416 |
| 791 | 5989.1 | 575275 | 0.1021448 | 5/9/19 8:28 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0130114 | 6.70217E+12 | 0.0001868 | 0.005594 | 3.0130114 |
| 792 | 5990.38 | 575275 | 0.1021666 | 5/9/19 8:33 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.0136553 | 6.70217E+12 | 0.0010001 | 0.0299497 | 3.0136553 |
| 793 | 5999.35 | 575275 | 0.1023196 | 5/9/19 8:38 | 0.0212738 | 0.6370794 | 4.8263E+13 | 3.018168 | 6.70217E+12 | -0.0026113 | -0.0781997 | 3.018168 |
| 794 | 6009.99 | 575276 | 0.1040749 | 5/9/19 8:43 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0699468 | 6.70217E+12 | 0.0003791 | 0.0113528 | 3.0699468 |
| 795 | 6015.23 | 575276 | 0.1041657 | 5/9/19 8:48 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0726234 | 6.70217E+12 | 0.0045541 | 0.1363801 | 3.0726234 |
| 796 | 6006.59 | 575276 | 0.1040161 | 5/9/19 8:53 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0682101 | 6.70217E+12 | 0.0020439 | 0.061208 | 3.0682101 |
| 797 | 6012.06 | 575276 | 0.1041108 | 5/9/19 8:58 | 0.0212738 | 0.6370794 | 4.75331E+13 | 3.0710042 | 6.70217E+12 | 0.0057903 | 0.1734002 | 3.0710042 |
| 798 | 5997.24 | 575276 | 0.1038541 | 5/9/19 9:03 | 0.021087 | 0.6314854 | 4.75331E+13 | 3.063434 | 6.70217E+12 | 0.0154338 | 0.4615919 | 3.063434 |
| 799 | 6009.31 | 575277 | 0.1048522 | 5/9/19 9:08 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0928732 | 6.70217E+12 | 0.007881 | 0.2360097 | 3.0928732 |
| 800 | 6014.99 | 575277 | 0.1049513 | 5/9/19 9:13 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0957966 | 6.70217E+12 | 0.0015859 | 0.0474924 | 3.0957966 |
| 801 | 6015.14 | 575277 | 0.1049539 | 5/9/19 9:18 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0958738 | 6.70217E+12 | 0.0110437 | 0.330722 | 3.0958738 |
| 802 | 6010.98 | 575277 | 0.1048813 | 5/9/19 9:23 | 0.021087 | 0.6314854 | 4.71754E+13 | 3.0937327 | 6.70217E+12 | 0.0082541 | 0.2471828 | 3.0937327 |
| 803 | 6015.8 | 575279 | 0.1061867 | 5/9/19 9:28 | 0.021087 | 0.6314854 | 4.66328E+13 | 3.13224 | 6.70217E+12 | 0.0098213 | 0.2941152 | 3.13224 |
| 804 | 6008.98 | 575281 | 0.1036694 | 5/9/19 9:33 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0579847 | 6.70217E+12 | 0.0137284 | 0.4111198 | 3.0579847 |
| 805 | 6005.02 | 575281 | 0.1036011 | 5/9/19 9:38 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0559695 | 6.70217E+12 | 0.0148862 | 0.4457921 | 3.0559695 |
| 806 | 5992.86 | 575281 | 0.1033913 | 5/9/19 9:43 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0497812 | 6.70217E+12 | 0.019156 | 0.5736583 | 3.0497812 |
| 807 | 6001.7 | 575281 | 0.1035438 | 5/9/19 9:48 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0542799 | 6.70217E+12 | 0.0155476 | 0.4655988 | 3.0542799 |
| 808 | 5996.77 | 575281 | 0.1034587 | 5/9/19 9:53 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.051771 | 6.70217E+12 | 0.0127646 | 0.3822572 | 3.051771 |
| 809 | 5997.26 | 575281 | 0.1034672 | 5/9/19 9:58 | 0.021087 | 0.6314854 | 4.7711E+13 | 3.0520204 | 6.70217E+12 | 0.01036 | 0.3102475 | 3.0520204 |
| 810 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:03 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | -0.0001443 | -0.0043213 | 3.050967 |
| 811 | 5995.19 | 575281 | 0.1034315 | 5/9/19 10:08 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.050967 | 6.70217E+12 | 0.0134747 | 0.4035223 | 3.050967 |
| 812 | 5978.15 | 575281 | 0.1031375 | 5/9/19 10:13 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0422953 | 6.70217E+12 | 0.0153319 | 0.4591393 | 3.0422953 |
| 813 | 5989.44 | 575281 | 0.1033323 | 5/9/19 10:18 | 0.0217322 | 0.6508069 | 4.7711E+13 | 3.0480408 | 6.70217E+12 | 0.016155 | 0.4837884 | 3.0480408 |
| 814 | 6001.74 | 575282 | 0.1070813 | 5/9/19 10:23 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.158626 | 6.70217E+12 | 0.0174376 | 0.522198 | 3.158626 |
| 815 | 6010.06 | 575282 | 0.1072297 | 5/9/19 10:28 | 0.0217322 | 0.6508069 | 4.61352E+13 | 3.1630047 | 6.70217E+12 | 0.0234385 | 0.7019049 | 3.1630047 |
| 816 | 6009.71 | 575283 | 0.1079065 | 5/9/19 10:33 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1829698 | 6.70217E+12 | 0.0203173 | 0.6084354 | 3.1829698 |
| 817 | 5995.73 | 575283 | 0.1076555 | 5/9/19 10:38 | 0.0217322 | 0.6508069 | 4.58431E+13 | 3.1755655 | 6.70217E+12 | 0.019624 | 0.5876734 | 3.1755655 |
| 818 | 6000.73 | 575284 | 0.1065399 | 5/9/19 10:43 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.142657 | 6.70217E+12 | 0.0143614 | 0.4300761 | 3.142657 |
| 819 | 6007.62 | 575284 | 0.1066622 | 5/9/19 10:48 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1462654 | 6.70217E+12 | 0.0184275 | 0.5518422 | 3.1462654 |
| 820 | 6006.48 | 575284 | 0.106642 | 5/9/19 10:53 | 0.0217322 | 0.6508069 | 4.63618E+13 | 3.1456683 | 6.70217E+12</ | | | |

IN THE UNITED STATES DISTRICT COURT
IN AND FOR THE DISTRICT OF DELAWARE

- - -

BEARBOX LLC and AUSTIN)
STORMS,)
)
Plaintiffs,)
)
vs.) Civil Action No.
) 21-534-MN-CJB
LANCIUM LLC, MICHAEL T.)
MCNAMARA, and RAYMOND E.)
CLINE, JR.,)
)
Defendants.)

- - -

Wilmington, Delaware
Friday, April 22, 2022
Motion to Strike Hearing
and
Discovery Dispute Hearing

- - -

BEFORE: HONORABLE CHRISTOPHER J. BURKE, Magistrate Judge

- - -

APPEARANCES:

ASHBY & GEDDES, P.A.
BY: ANDREW COLIN MAYO, ESQ.
and
MARSHALL GERSTEIN BORUN LLP
BY: BENJAMIN HORTON, ESQ., and
JOHN R. LABBE, ESQ.
(Chicago, Illinois)
Counsel for Plaintiffs

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|--|---|
| <p style="text-align: right;">Page 22</p> <p>1 was filed and the trade secret counts were dropped. So 2 the trade secrets were no longer at issue in the case 3 when that interrogatory responded to. 4 But as far as -- 5 THE COURT: Mr. Horton, wait. I'm sorry. 6 Just to back up, you said an architecture of something. 7 What was it again? 8 MR. HORTON: Yeah. A system architecture, 9 Your Honor. So the way the system would be set up where 10 different components would be and how they would be 11 interconnected. 12 THE COURT: But a system architecture 13 relating to what? 14 MR. HORTON: Related to cryptocurrency 15 mining. 16 THE COURT: I mean, I'm just trying to -- 17 obviously, one thing I'm trying to do here is I'm trying 18 to understand in my own mind. Like, a key issue here is 19 defendants say that the plaintiffs were basically talking 20 about the types of arbitrage methods that are referred to 21 in the second amended complaint back in the original 22 complaint. 23 And the plaintiff is saying, No, we 24 weren't. No, no, we were talking about something else.</p> | <p style="text-align: right;">Page 24</p> <p>1 THE COURT: And it didn't have anything to 2 do with arbitrage methods at all? 3 MR. HORTON: That's correct, Your Honor. 4 THE COURT: Okay. Now, to that, the other 5 side, they cite your response to that interrogatory, and 6 I think you've said that the response came after the 7 trade secret counts were dropped. But in the 8 interrogatory, they used the same phrase "BearBox 9 technology" that you used in the original complaint when 10 referencing the trade secret. 11 And then they say, Look, look at their 12 answer. When we asked them what BearBox technology was, 13 part of the answer was the sentence beginning on the 14 supplementary answer "Mr. Storms also explained." And I 15 think they're saying what's being described there is 16 energy value arbitrage. 17 How come they're wrong? In other words, 18 they're suggesting that BearBox technology means the 19 kinds of methods for energy value arbitrage they're 20 talking about in the second amended complaint, and 21 they're citing particular parts of your supplemental 22 answer to demonstrate that. 23 Why is their reading of your answer 24 incorrect.</p> |
| <p style="text-align: right;">Page 23</p> <p>1 And so incumbent upon that is to say, Here's what we were 2 talking about. And you can see it's not the specific 3 arbitrage method that we're talking about now in the 4 second amended complaint. But I'm still struggling to 5 understand what it was you were talking about in the 6 first complaint. 7 This architecture, what does it have to do 8 with -- what more can you tell me about why the two 9 things weren't overlapping? 10 MR. HORTON: Yeah. Fair enough, Your 11 Honor. I'm not doing a good job of explaining that. 12 First of all, it had nothing to do with 13 energy value arbitrage methods. What it did have to do 14 with was more -- when I say "architecture," I'm talking, 15 Your Honor, about how different components are connected. 16 So, in other words, where servers might be in their 17 relationship in terms of how they're connected to an 18 electricity grid; where the control center may be with 19 respect to those servers in the electricity grid. 20 Something more high-level, how you set up various 21 physical components of a system. 22 THE COURT: So it was about certain 23 computer architecture? 24 MR. HORTON: Yeah.</p> | <p style="text-align: right;">Page 25</p> <p>1 MR. HORTON: It's incorrect, Your Honor, 2 because that answer does not discuss or reveal the 3 particular method of energy value arbitrage we're talking 4 about here, nor would it, because at the time we 5 responded to this interrogatory, first of all, no trade 6 secret was in the case at all. 7 Second of all, we had no reason to 8 believe, at that point, that the defendants had 9 misappropriated and were using this particular trade 10 secret. And the particular trade secret, Your Honor, the 11 particular method of energy value arbitrage is very 12 specific. It involves specific variables, specific 13 estimates or computations about specific performance 14 characteristics of particular machines and how those 15 values all work together to inform how a system might 16 determine at what price to buy energy, at what price, 17 when to sell it. It's very specific, Your Honor, and 18 that just wasn't contemplated at the time we responded to 19 that interrogatory and that information's not in that 20 answer. 21 THE COURT: I guess when you were 22 responding to the interrogatory, did you understand -- 23 they're obviously asking you to describe all aspects of 24 the BearBox technology. Were you attempting -- and the</p> |

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IN THE UNITED STATES DISTRICT COURT
IN AND FOR THE DISTRICT OF DELAWARE

| | | |
|---------------------------------|---|---------------|
| BEARBOX LLC and AUSTIN STORMS, |) | |
| Plaintiffs, |) | |
| v. |) | |
| |) | C.A. No. |
| LANCIDM LLC, MICHAEL T. |) | 21-534-MN-CJB |
| MCNAMARA, and RAYMOND E. CLINE, |) | |
| JR. |) | |
| Defendants. |) | |

- - - -
Wilmington, Delaware
Thursday, October 20, 2022
Markman Transcript
- - - -

BEFORE: HONORABLE GREGORY B. WILLIAMS
UNITED STATES DISTRICT COURT JUDGE

- - - -

Michele L. Rolfe, RPR, CRR

1 meaning as we understand BearBox understands the plain and
2 ordinary meaning, because we're not sure what their plain
3 and ordinary meaning actually is. It seems to come from
4 their expert. And this is their expert, Dr. McClellan --
5 and that's sort of how we got here because we didn't know
6 until we took Mr. McClellan's deposition sort of where they
7 were thinking about going with what they understood the
8 plain and ordinary meaning to be.

9 And so this is Mr. McClellan here -- Dr.
10 McClellan. My understanding of a power option agreement is
11 essentially a contract to buy power at a certain price. So
12 if that's the definition and the plain and ordinary meaning
13 they're going with, there's no option and there's no
14 minimum.

15 So he goes on: To me that's the plain and
16 ordinary meaning of it. Opting to purchase power ahead of a
17 time at a certain rate.

18 Now, that's slightly different than up here.

19 And then he goes on: I'm going to pay for that
20 power whether I use it or not. I don't have to use it.

21 So he's then asked: You said PPA, meaning power
22 purchase agreement, I think the term from the patent is
23 power option agreement. And he answers: I may have used
24 the wrong term. I meant the contracted purchase of power at
25 a certain price.

1 So his point, I think, Your Honor, was, look,
2 I'm contracted, I must receive it, it must be delivered to
3 me. Because I don't disagree with Mr. Nelson, the point of
4 the power option agreement is the grid wants to be able to
5 balance itself. And so in the event that it needs to call
6 on the option to sort of redirect that delivered power
7 elsewhere; of course that means the power needs to be
8 delivered in the first place. And so I think Dr.
9 McClellan's testimony is consistent with that.

10 What I think he was resisting is the notion that
11 that delivered power has to be used to perform computations.
12 When -- his review of the patent, he thinks that the power
13 could be used to, you know, conduct computations, but also
14 to use for infrastructure, shunt to ground. He's reading
15 the patent more broadly in terms of what the power can be
16 used for. I don't think he disputed any point that it needs
17 to be contracted to be delivered.

18 THE COURT: Well, let me ask you a follow up:
19 Didn't I read somewhere where Dr. McClellan admitted that he
20 didn't review the patent?

21 MR. HORTON: I don't think so, Your Honor. That
22 might have been Dr. McCamant -- or Mr. McCamant.

23 MR. NELSON: Yeah, I was going to say counsel is
24 correct. So both parties have a technical expert,
25 Dr. Hasani is ours, Dr. McClellan is BearBox's. And a --

1 So moving on to minimum power threshold, Your
2 Honor. Again, BearBox's construction has always been plain
3 and ordinary meaning. That was Lancium's construction of
4 the term as well up until the summary judgment brief was
5 filed. That was Lancium's interpretation -- was consistent
6 with BearBox's or at least they didn't dispute it all the
7 way through fact discovery, all the way through expert
8 reports, and only in summary judgment did they raise an
9 issue. Trying to --

10 THE COURT: Didn't both sides reserve the right
11 to request claim construction in the future if necessary?

12 MR. HORTON: They did, Your Honor. They did.

13 So if we're trying to resolve a perceived issue
14 about what the plain and ordinary meaning is, this is an
15 attempt at a compromise to try to harmonize, again, the
16 claim.

17 A minimum power threshold, BearBox's proposes
18 would be a minimum amount of power delivered to a load
19 unless the power entity exercises the option. And, again,
20 the option would be discussed in the previous plain and
21 ordinary meaning of power option agreement.

22 What we want to be clear about here, though, is
23 that a minimum power threshold may be zero. We didn't think
24 this was controversial until the summary judgment briefing,
25 because the patent is so clear about that.

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IN THE UNITED STATES DISTRICT COURT
IN AND FOR THE DISTRICT OF DELAWARE

| | | |
|---------------------------------|---|---------------|
| BEARBOX LLC and AUSTIN STORMS, |) | |
| Plaintiffs, |) | |
| v. |) | |
| |) | C.A. No. |
| LANCIUM LLC, MICHAEL T. |) | 21-534-MN-CJB |
| MCNAMARA, and RAYMOND E. CLINE, |) | |
| JR. |) | |
| Defendants. |) | |

- - - -
Wilmington, Delaware
Tuesday, November 29, 2022
Pretrial Transcript
- - - -

BEFORE: HONORABLE GREGORY B. WILLIAMS
UNITED STATES DISTRICT COURT JUDGE

- - - -

Michele L. Rolfe, RPR, CRR

APPEARANCES:

ASHBY & GEDDES
BY: ANDREW C. MAYO, ESQ.

-and-

MARSHALL, GERSTEIN & BORUN LLP
BY: BENJAMIN T. HORTON, ESQ.
JOHN LABBE, ESQ.
For the Plaintiffs

BARNES & THORNBURG LLP
BY: WILLIAM BURTON, ESQ.
MARK C. NELSON, ESQ.
ADAM M. KAUFMANN, ESQ.
DERRICK HOOKER, ESQ.
For the Defendants

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P R O C E E D I N G S

(REPORTER'S NOTE: The following pretrial hearing was held in Courtroom 6-B, beginning at 3:00 p.m.)

THE COURT: Good afternoon. You may be seated.

All right. So we're here for the final pretrial conference in BearBox LLC, et al versus Lancium LLC, et al. Civil Action No. 21-534.

There's a three-day bench trial scheduled to start on Tuesday, December 6th at 9:00 a.m.

So I have reviewed the proposed pretrial order submitted by the parties and I just want to go through and -- go through the various sections and see what needs to be done and then decide on the motions in limine.

So let's start by having counsel put their appearances on the record.

MR. MAYO: Good afternoon, Your Honor.

THE COURT: Good afternoon, Mr. Mayo.

MR. MAYO: Andrew Mayo from Ashby & Geddes on behalf of plaintiffs BearBox and Mr. Austin Storms. I'm joined today by my co-counsel from Marshall Gerstein Ben Horton and John Labbe.

MR. LABBE: Good afternoon.

MR. BURTON: Good afternoon, Your Honor.

1 William Burton of Barnes & Thornburg on behalf of
2 defendants. With me today is Mark Nelson, Adam Kaufmann and
3 Derrick Hooker all from Barnes & Thornburg and all have been
4 admitted pro hac.

5 Mr. Stover wanted me to let you know he's with
6 Judge Fallon right now, but he does intend on joining us
7 once that's over.

8 THE COURT: Okay.

9 So first with respect to trial exhibits and
10 objections thereto, I see that the parties have separate
11 list of exhibits. What I'd like the parties to do is to
12 meet and confer and compile a joint -- a common list of
13 exhibits in an attempt to reach agreement on any remaining
14 objections.

15 The common list of exhibits should be filed no
16 later than Friday, December 2nd, along with a list of any
17 exhibits that remain in dispute. And for those that remain
18 in dispute, I want the specific objections to the proposed
19 exhibit with citations and any response to those objections
20 with citations.

21 With respect -- you know, the purpose is to
22 narrow the objections down as much as possible and to
23 have -- it looks like many of the exhibits are the same, so
24 instead of having plaintiffs and defendants, let's just have
25 a common exhibit list.

1 And then to the extent that there are some
2 exceptions where you guys just can't reach an agreement,
3 then we can have them as, you know, Plaintiffs Exhibits and
4 Defense Exhibits, but the record will be clearer with as
5 many common exhibits as we can have.

6 Next with respect to demonstrative exhibits, any
7 party proposing to use demonstrative exhibits during their
8 examination of witnesses should produce the proposed
9 demonstrative to the other side at least 24 hours in advance
10 before its intended use and meet and confer about any
11 proposed objections.

12 If the parties cannot reach agreement on
13 demonstratives, it should be brought to the Court's
14 attention for resolution prior to the start of the hearing
15 on the proposed demonstratives to be used.

16 Next with respect to witnesses, are there any
17 significant disputes with respect to the calling of any
18 witnesses identified by either side that the Court needs to
19 resolve?

20 In looking at the witness list, none was
21 apparent to me.

22 MR. NELSON: Your Honor, there's one issue
23 that's come up, I don't think it's going to be a problem,
24 but Rachel Arndt is on the may call list for defendants. It
25 came to our attention last night that she is likely

1 unavailable. She lives in Chicago and her husband is out of
2 town this time period when the trial is going to occur and
3 she doesn't have anybody to watch her kids.

4 I think it's unlikely -- I brought this up to
5 opposing counsel this morning. I think it's unlikely we
6 will call her, given the current posture of the case, but
7 she is amendable to appearing by Zoom or some other method
8 in the event she were to be called if the Court would
9 consider that.

10 THE COURT: Okay. If it is necessary to call
11 her, she's on the may call list, so if it becomes an issue
12 where you need to -- where defendants decide they want to
13 call her, defendants should confer with counsel for
14 plaintiffs to see whether they have any objection to her
15 appearing remotely. And if you guys can't reach agreement
16 on it, then I'll weigh in on it. Hopefully the parties will
17 be able to reach agreement if necessary.

18 MR. NELSON: Thank you, Your Honor.

19 THE COURT: Any other issues with respect to
20 witnesses?

21 MR. HORTON: Your Honor, we have designated in
22 the pretrial order that we intend to call in our
23 case-in-chief by deposition some limited deposition
24 designations from two of the defendant's witnesses. We
25 discussed that with counsel today during a meet and confer,

1 and counsel didn't have a position whether they were going
2 to object or not to that. So we wanted to raise that as a
3 potential issue as well.

4 THE COURT: Okay. So what's the issue with
5 respect to deposition designations?

6 MR. NELSON: Well, Your Honor, we were -- we
7 wanted some time to research the issue. It's my experience
8 that some courts permit deposition designations to be played
9 when the witnesses are also present live and other courts do
10 not. And if plaintiff wants to call an adverse witness in
11 their case-in-chief, then they call the person live. And I
12 don't know what Your Honor's preference is at all, but we
13 wanted to research the issue to make a decision.

14 THE COURT: Right. Did you intend to call these
15 witnesses live as well?

16 MR. HORTON: No, Your Honor, just limited
17 deposition testimony. The rule -- the rule on point, we
18 think, on some point here, Your Honor, is Rule 32(a)(3).
19 And the witnesses that we're talking about here, Your Honor,
20 are also parties to the case, and that's what we believe
21 Rule 32(a)(3) covers.

22 THE COURT: Okay. Are these witnesses that the
23 defendants will call as well?

24 MR. HORTON: I believe so, Your Honor, but I --

25 MR. NELSON: Who is it; is it Cline and

1 McNamara?

2 MR. HORTON: Yes, that's correct.

3 MR. NELSON: Yeah, I think it's highly likely
4 we'll call both McNamara and Cline.

5 THE COURT: Okay. So if these witnesses are
6 going to be live witnesses, why not just call them as cross
7 in your case-in-chief?

8 MR. HORTON: Rule 32(a)(3), Your Honor, says
9 that we can use the parties' testimony taken by deposition
10 for any purpose; and so that's the purpose we'd like to use
11 it for.

12 We also think it would be more efficient and
13 orderly for those pieces of information and authentication
14 of documents to be done by deposition rather than through,
15 for example, cross-examination or calling an adverse witness
16 live.

17 THE COURT: Okay.

18 All right. You said you may do it or are you
19 sure you're going to do it?

20 MR. HORTON: I think we're sure we're going to
21 do it, Your Honor.

22 THE COURT: Okay.

23 All right. So, defendants, you wanted some time
24 to look at the issue further. Let me know your position,
25 defendants, on it by noon on Friday.

1 MR. NELSON: Yes, Your Honor.

2 One thing that would help us -- and I don't know
3 if you're willing to do this or not -- was to know what
4 portions of the depo designations they intend to play.
5 Because if it's simply authenticating documents or something
6 like that, you know, that may well be something that we're
7 more likely to agree to than significant portions of
8 depositions that we think might be out of context or
9 whatever.

10 I don't know if it's something you're willing to
11 do is to tell us what you're going to play in advance so we
12 can have a better feel for whether we're going to object or
13 not.

14 MR. HORTON: So, Your Honor, we've exchanged
15 deposition designations, as Your Honor probably knows those
16 start out broad and they get narrowed through the process.
17 We're in the process of narrowing that. I believe under the
18 current pretrial order that we proposed, we would have to
19 provide the actual designations we intend to play by
20 Saturday.

21 THE COURT: Yes.

22 MR. HORTON: So that is our plan.

23 THE COURT: Okay.

24 All right. And then the defendants will have an
25 opportunity to designate their counter-designations. So it

1 sounds like by Saturday plaintiffs will let defendants know
2 the specific designations that they proposed to play. Is it
3 video as well?

4 MR. HORTON: That's correct, Your Honor, yes.

5 THE COURT: Okay. And then defendants will have
6 the opportunity to counter-designate or raise any objections
7 that you have and if it's -- so why don't we make
8 defendants -- if there's still an issue by Monday morning,
9 you get me your position. And if it's something that I need
10 to resolve, you'll let me know.

11 MR. NELSON: That sounds good, Your Honor.

12 Thank you.

13 THE COURT: Okay. And the next topic was going
14 to be deposition designations, so parties are going to
15 continue to meet and narrow your deposition designations and
16 any objections to it.

17 Any proposed deposition designations that either
18 side intends to present should be presented to the other
19 side in accordance with the instructions of the Court; and,
20 thereafter, the opposing side has the opportunity to make
21 counter-designations.

22 And if there's still any objections, the parties
23 should bring it to the Court's attention before the day that
24 the counter-designations are proposed to be read into the
25 record.

1 Next is just time allocation. It's a three-day
2 bench trial, so basically we're dealing with about 20 hours.
3 Each side will be allocated a total of one hour for opening
4 and closings. Each side will be allocated up to
5 seven-and-a-half hours to present their case or their
6 defense case-in-chief and rebuttal through testimony. So
7 seven-and-a-half hours total each side.

8 Sidebar objections will be charged to the
9 parties.

10 With respect to openings and closings, you know,
11 it's a bench trial, you can decide whether or not you want
12 to give an opening or closing, but, you know, we'll just set
13 aside one hour.

14 If you decide that you don't want it and would
15 rather have that time in your presentation of your case,
16 just let me know and we can have that time added to you.

17 But the parties should meet and confer about
18 that and let me know about that prior to the start of trial.

19 MR. NELSON: Your Honor, may I ask a question?

20 THE COURT: Sure.

21 MR. NELSON: I think I know the answer, but when
22 you say one hour for openings and closings, do you mean each
23 or the total?

24 THE COURT: I mean each.

25 MR. NELSON: So one hour openings and one hour

1 for closing?

2 THE COURT: No, one hour per side.

3 MR. NELSON: Okay.

4 THE COURT: You can divvy up your hour between
5 opening and closing as you like.

6 MR. NELSON: All right. Thank you.

7 THE COURT: All right. Moving to the motions in
8 limine. I've reviewed the motions in limine.

9 I'll start with plaintiff's motion in limine
10 one, which is motion in limine to preclude defendants from
11 presenting evidence, testimony or argument at trial about
12 any of their patents, patent applications or inventions
13 other than the '433 patent.

14 That motion in limine is denied. Evidence of
15 Lancium's '632 application and other evidence of Lancium's
16 patent portfolio is relevant to plaintiff's claims and
17 defendant's defenses thereto, and its probative value is not
18 substantially outweighed by the danger of unfair prejudice.

19 Moving to plaintiff's motion in limine two,
20 which is the motion in limine to preclude defendants from
21 presenting evidence, testimony or argument at trial about
22 any purported conception of any element of the inventions
23 claimed in the '433 patent that defendants withheld during
24 fact discovery.

25 That motion in limine is denied. Lancium

1 provided over 30 pages of dates and evidence supporting
2 their claim of conception of the '433 patent. Lancium later
3 provided additional evidence on an element-by-element basis
4 through Dr. Ehsani's expert report. After Lancium
5 supplemented its response to Interrogatory No. 3, BearBox
6 never moved to compel for any alleged deficiency in the
7 response, thus Lancium had reason to believe its response
8 was sufficient. And the *Pennypack* factors favor inclusion
9 of the evidence.

10 Moving to plaintiff's motion in limine number
11 three, which is motion in limine to preclude defendants from
12 presenting evidence, testimony or argument at trial
13 suggesting that plaintiffs cannot prove inventorship or
14 conversion by relying on nonconfidential information.

15 That motion in limine is granted in part; denied
16 in part. Lancium is able to present evidence, testimony or
17 argument about the public nature of BearBox's disclosures,
18 which is relevant to Lancium's defense against BearBox's
19 claim of joint inventorship, i.e., to prove there was no
20 collaboration between Lancium, including McNamara and/or
21 Cline and Mr. Storms. However, Lancium cannot make blanket
22 statements that the alleged public nature of BearBox's
23 disclosures precludes a finding of joint inventorship. Such
24 a statement is not supported by the law. See the
25 *Dana-Farber* case, 964 F.3d, 1365 at 1371 to 1372.

1 Moving to Lancium's first motion in limine,
2 which is a motion in limine to preclude expert testimony
3 inconsistent with the Court's claim construction ruling and
4 to include new expert testimony or opinions outside the
5 scope of expert's reports.

6 That motion is granted in part; denied in part.
7 Defendant's motion in limine number one is granted in part
8 to the extent it seeks to preclude Dr. McClellan from
9 testifying inconsistently with the Court's *Markman* opinion.
10 Ultimately, any concern of prejudice can be adequately
11 addressed during trial by proper objection or through
12 cross-examination of Dr. McClellan.

13 Defendant's motion in limine number one is
14 denied in part as moot based on the Court's November 23rd
15 order striking Dr. McClellan's supplemental report.

16 Moving to Lancium's motion in limine number two,
17 which is a motion in limine to preclude plaintiffs from
18 using pejorative terms like "thief, theft, steal, stealing
19 or robbery."

20 Defendant's motion in limine number two is
21 denied as moot. Conversion is no longer a claim to be tried
22 and this is no longer a jury trial.

23 Moving to Lancium's motion in limine number
24 three, motion in limine to preclude any argument or evidence
25 regarding discovery disputes. The ruling is that neither

1 side should refer to Lancium's source code or any discovery
2 dispute related to such matter.

3 At the same time, Lancium cannot not produce
4 such information but try to use such information in its
5 defense.

6 BearBox cannot refer or attempt to use any
7 discovery the disputes.

8 That's all the rulings on the motions in limine.

9 That is all that I had on my list.

10 Anything else that counsel believes that we need
11 to discuss this afternoon?

12 One thing I need to raise is set up of
13 electronic equipment. The parties requested that the Court
14 grant them access to the courtroom on Monday, December 5th
15 to allow the parties to set up electronic and computer
16 devices to be used during trial. That's fine. There's
17 nothing on the Court's schedule in this courtroom on that
18 date, so the parties will be granted access to set up their
19 electronic equipment.

20 Just call chambers and coordinate to make sure
21 the courtroom is open so that you can set up your equipment.

22 MR. HORTON: Your Honor, one other -- it may be
23 too early to ask, but we wanted to ask about post-trial
24 briefing for conclusions of law and those findings of fact.
25 We started to discuss this with opposing counsel and we

1 didn't know whether you would prefer sequential briefing or
2 simultaneous briefing. And I think the one thing we're in
3 agreement on is that we'd like to ask for maybe five to
4 six weeks for the opening briefs to put them a little after
5 the holidays, the next round wouldn't be due until
6 thereafter. We're sort of in agreement on that.

7 If that's amendable to Your Honor, we can put a
8 proposed schedule, but I think we need your guidance on your
9 preference for -- I think our preference would be sequential
10 briefing, I can't speak -- we didn't reach an agreement on
11 that aspect of anything, but our preference would be that we
12 would file briefs, they would respond and then we would have
13 an opportunity to reply as well as the plaintiffs.

14 MR. NELSON: And so I guess we are in agreement
15 with the other side with respect to trying to have
16 post-trial briefing done sort of after the holidays. It
17 would be our preference, I think, to have simultaneous
18 briefing or if it is sequential briefing we would get a
19 sur-reply so each side would get the same number of papers.

20 THE COURT: Okay. I'm fine with the schedule
21 after the holidays.

22 You guys meet and confer and set a proposed
23 order.

24 With respect to whether simultaneous or
25 sequential, I think it would be more -- it's more productive

1 for the Court to have sequential briefing, but I will grant
2 your request for sur-reply so that each side has the same
3 amount of times to address the Court.

4 MR. NELSON: Thank you, Your Honor.

5 MR. HORTON: Okay. I think with that advice, we
6 can meet and confer and put together a proposal.

7 MR. NELSON: One more pretrial issue, Your
8 Honor.

9 THE COURT: Go ahead.

10 MR. NELSON: How does the Court prefer that we
11 bring up judgment as a matter of law, motion for directed
12 verdict, things like that during the course of once they
13 rest, assuming that we would make such a motion and then
14 again once we rest.

15 THE COURT: Yes. Just make your motion orally
16 and let me know that you're making your motion. I assume
17 that you'll follow up with, you know, written papers. So if
18 I have it then you can make your motion and hand up your
19 written submission. If you're going to do it -- a follow
20 up, you know, after your oral -- at some later date, you
21 know, let me know.

22 MR. NELSON: Okay. It would be our preference
23 to do it at a later date and make the motions orally at the
24 time just to preserve the record.

25 THE COURT: Okay. But they should be -- they

1 will be due within -- the written submissions will be due
2 within five days after the completion of trial.

3 MR. NELSON: Five days, Your Honor?

4 THE COURT: Yes. Five -- so seven days, yes.
5 So a week after the completion of the trial.

6 MR. NELSON: Thank you, Your Honor. That's
7 fine.

8 THE COURT: Anything else?

9 MR. HORTON: I guess I'll raise it, it is our
10 position that there's no such thing as a motion for a
11 directed verdict or for judgment as a matter of law for a
12 bench trial. I think the rule specifically says with
13 respect to a jury trial, so that would be our position with
14 respect to those motions that they wouldn't be appropriate
15 for a bench trial.

16 THE COURT: Okay.

17 All right. We'll take it under advisement. If
18 that is indeed the law, then it's easy to denial.

19 MR. NELSON: Okay, thank you, Your Honor.

20 THE COURT: Anything else?

21 MR. HORTON: No, Your Honor.

22 THE COURT: All right.

23 MR. NELSON: No, Your Honor.

24 THE COURT: All right. We will recess.

25 We'll look for your proposed orders and we'll

1 see you for trial on Tuesday.

2 (Whereupon, the following proceeding concluded
3 at 3:26 p.m.)

4 I hereby certify the foregoing is a true
5 and accurate transcript from my stenographic notes in the
6 proceeding.

7 /s/ Michele L. Rolfe, RPR, CRR
8 U.S. District Court
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